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## APPENDIX NO. 4. Continued.

### EDUCATION IN OTHER STATES AND COUNTRIES.

#### PRUSSIA.

##### SYSTEM OF PRIMARY INSTRUCTION AND SCHOOLS.

###### FROM PRES. BACHE'S REPORT.

It is a very general impression, that the present primary school system of Prussia, is of comparatively recent date, or that it has been within twenty years, recast, and moulded into its present form. The fact, however is, that it is a system composed of fragments of very different dates, beginning in the Mark of Brandenburg, before the kingdom of Prussia existed, and variously modified from that time to the present. It is one of the peculiar merits of the system, that its provisions have, for the most part been tried on a small scale before they have been applied to the whole country, and that when a provision has, on trial, proved ill-devised, it has been promptly modified or annulled. Prussia seems for a series of years, to have possessed patriotic and enlightened citizens, who have devoted themselves to the cause of public instruction, and monarchs who have duly estimated and encouraged their exertions in this cause.

As early as the reign of the Elector Joachim the Second, (1540) visitors were appointed to inspect the town schools of the Electorate, with express directions to report in relation to the measures deemed necessary for their improvement.—In 1545, the same elector appointed a permanent council or board, on church and school matters. In a decree of some length, by the elector John George, (1573) special sections are devoted to the schools, to teachers and their assistants, and to pupils. It is remarkable as containing a provision for committees of superintendence, consisting of the parish clergyman, the magistrates and two notables, exactly similar in constitution to the present school-committees.

In 1717, a decree of Frederick William the First, King of Prussia, enjoins upon Parents to send their children to school, provides for the payment of teachers, for the education of poor children, and for catechetical instruction by the parochial clergymen. In 1735, the first regular seminary for teachers in Prussia was established at Stettin, in Pomerania. To induce a better attendance at school, a decree of 1736 requires that the parent of every child between five and twelve years of age, shall pay a certain fee, whether his child goes to school or not; this rule being, as it were, preliminary to the present one of forced attendance. The same decree refers to school houses erected by associated parishes, showing, that such associations existed previously to the decree for providing public schools; similar associations may even now exist, but they are not numerous, forming exceptions to the general rule, requiring each parish to have its public school. The decree provides further for the amount of fees to be paid to the teacher by the pupils, the church, or the state, and for aid to peasants who have more than two children above five years of age, by the payment of the fees of all over this number from a school fund. A rescript of 1739, constitutes the clergy the inspectors of schools.

An attempt to provide more precisely, by law, for the regulation of the schools in Berlin, was made by a decree of 1738. This decree requires that teachers shall be regularly examined by the inspectors of schools before being allowed to teach, and prescribes their acquirements in detail. It directs the opening and closing of the schools with prayers; fixes the hours of daily attendance at from eight to eleven or seven

to ten in the morning, and one to three in the afternoon; prescribes instruction in spelling, reading, writing, arithmetic, and singing, and regulates the emoluments and perquisites of the master.

A new impulse was given to public instruction under the reign of Frederick the Great. The regulations drawn up by Hecker, and approved by the king, (1763) are very precise, and though they have been in part superseded by later decrees, many of their provisions are still in force. They provide for the selection of school-books by the consistory; that children shall be sent to school at five years of age, and be kept there until thirteen or fourteen, or until they have made satisfactory attainments in reading and writing, in the knowledge of Christian doctrine, and of such matters as are to be found in their text-books; fix the school-hours, requiring six hours a day of instruction in winter, and three in summer, and one hour of catechetical instruction, besides the Sunday teaching; require that all unmarried persons of the parish shall attend the hour of instruction in the catechism, and besides, receive lessons in reading and writing from the Bible. The regulations provide anew for the school-master's fees, and for the instruction of poor children; require that the school-master shall be furnished from the church-register with a list of all the children of the age to attend school, and that he shall prepare a list of those who are actually in attendance, and submit both to the clergyman, in his periodical visits; direct anew the examination of candidates for the situation of school master, and refer particularly to the advantages of the seminary opened at Berlin for preparing teachers for the Mark of Brandenburg; lay down minutely the scheme of elementary instruction, and actually specify the time to be devoted to the different branches, with each of the two classes composing the school; require the parochial clergy to visit the schools twice a week, and inspectors of circles to perform the same service at least once a year.

The decree of Frederick regulating the Catholic schools of Silesia, (1765) is even more particular than the foregoing. It shows the settled policy in regard to educating teachers in special seminaries, now so important a part of the Prussian system, by setting apart certain schools by name for this purpose, requiring the appointment of a director to each, and assigning his duties.\*

In 1787 Frederick William the Second, created a council of instruction, under the title of an "Upper School Board," (Ober-Schul-Collegium,) of which the minister of state was President. This council was directed to examine text-books, and to pass upon the licenses of masters, on the reports of the provincial school-boards. They were authorized to erect seminaries for teachers at the government expense, and to frame their regulations; to send out an inspector from their body to examine any part of public instruction, and to rectify all wrongs by a direct order, or through the school-boards of the provinces, the school-committees or patrons. This organization remained substantially in force until the separation of the departments of state and instruction in 1817, with the creation of a ministry of public instruction. The attributes of this upper school board, it will be seen, now belong to that council.

\* This decree contains the remarkable sentence, "The gentry, as well as the common people, must not consider or treat the teacher as a servant, but as an officer, whose duty it is to form good tenants for landlords, and children for parents."

The school plan of 1763 was modified by an ordinance of 1794, which introduces geography and natural history in the elementary schools, and refers to vocal music as one of their most important exercises; it also attempts, by minute prescriptions, to introduce uniformity in the methods of instruction and discipline. The regulation for the catholic schools of Silesia, was also revised in 1801.

Having now brought this chronological account to the beginning of our century, and shown that many provisions of weight originated previous to this period, I proceed, according to the purpose already explained, to leave the chronological order, and to give a view of the more important regulations now in force, appending to them the date of their enactment. These dates, with the foregoing, show, that while the separation of the ministry of public instruction from that of the state, in 1817, no doubt gave a new impulse to the present system, and was an important change in administration, it was by no means, the beginning of a new system. This division in fact resulted from the earlier provisions of the system itself, and especially of the seminaries for teachers. As early as 1806, a measure of great consequence was adopted, that of sending teachers to the school of Pestalozzi and others; many also went at their own expense; and thus improved methods were distributed over the kingdom, and over Germany in general.

The authorities which administer public instruction in Prussia are the following: The chief authority is the minister, who joins to this supervision that of ecclesiastical and medical affairs. He is assisted by a council, consisting of a variable number of members, and divided into three sections corresponding to the three charges of the minister. The section for public instruction has its president and secretary, and meets usually twice a week for the transaction of business. One of this body is generally deputed as extraordinary inspector in cases requiring examination, and reports to the minister. The kingdom of Prussia is divided into ten provinces, each of which has its governor, styled Superior President, (Ober-President,) who is assisted by a council called a Consistory, (Consistorium.) This council has functions in the province similar to those in the ministerial council in the kingdom at large, and has direct control of secondary public instruction, and of the schools for the education of primary teachers. It is subdivided into two sections, of which one has charge of the primary instruction in the province, under the title of the School Board, (Provincial Schul-Collegium.) The school board, in addition to exercising the general supervision of education in the province, examines the statutes and regulations of the schools, insures the execution of existing laws and regulations, examines text-books, and gives permission for their introduction, after having obtained the approbation of the ministry. This board communicates with the higher authorities, through their president, to whom the reports from the next lower authority, to be presently spoken of, are addressed, and by whom, when these relate to school-matters, they are referred to the board for examination.

The next smaller political division to a province, is called a Regency, (Regierungs-Bezirk,) which is again subdivided into Circles, (Kreis) and those into parishes, (Gemeinden.) The chief civil authority in the Regency, is a president, who is assisted by a council called also a regency.

This body is divided into three sections, having charge respectively of the internal affairs, of direct taxes, and of church and school matters. The last named committee examines and appoints all the teachers of elementary and burgher schools within the regency, superintends the schools, ascertains that the school houses and churches are duly kept in order, administers the funds of schools and churches, or superintends the administration, when vested in corporations, and collects the church and school fees. This committee is presided over by a member of the regency called the school-councillor, (Schul-rath.) As councillor, he has a seat and voice in the provincial consistory, where he is required to appear at least once a year, and to report upon their affairs in his regency, of which the provincial consistory has the superintendence. It is also his duty to visit the schools, and to satisfy himself that they are in good condition.

The next school authority is the inspector of a circle, who has charge of several parishes. These inspectors are gener-

ally clergymen, while the school-councillors are laymen. Next below the special superintendents is the immediate authority, namely, the school-committee, (Schul-Vorstand.) Each parish (Gemeinde) must, by law, have its school, except in special cases, and each school its committee of superintendence, (Schul-Vorstand,) consisting of the curate, the local magistrate, and from two to four notables; the constitution of the committee varying somewhat with the character of the school, whether endowed, entirely supported by the parish, in part by the province or state, or by subscription. The committee appoints a school-inspector, who is usually the clergyman of the parish. In cities, the magistrates form the school-committee, or school-deputation, as it is there called, the curates still acting as local inspectors.

Thus, there is a regular series of authorities, from the master of the school up to the minister, and every part of primary instruction is entirely within the control of an impulse from the central government, and takes its direction according to the will of the highest authorities. With such a system, under a despotic government, it is obvious that the provisions of any law may be successfully enforced.

The cardinal provisions of the school-system of Prussia, are:

*First.* That all children between the ages of seven and fourteen years shall go regularly to school.\* This is enforced by the school-committee, who are furnished with lists of the children who should attend, and of those actually in the schools under their charge, and who are required to enforce the penalties of the law.

*Second.* That each parish shall, in general, have an elementary school. When the inhabitants are of different religious persuasions, each denomination has its school, and if not, provision is made for the religious instruction of the children by their own pastors. The erection of the school house, its furniture, the income of the master, and aid to poor scholars, are all provided for. The requisite sum comes, in part, from parochial funds, and in part from a tax upon householders. When the parish is poor, it is assisted by the circle, by the province, and even by the state. Besides these elementary schools, most of the towns in Prussia have one or more upper primary or burgher schools.†

*Third.* The education of teachers in seminaries,‡ adapted to the grade of instruction to which they intend devoting themselves. Their exemption during their term of study from active military service, required of other citizens. A provision for their support during their term of study. A preference given to them over school-masters not similarly educated. Their examination previous to receiving a certificate of capacity which entitles them to become candidates for any vacant post in the province where they have been examined. Their subsequent exemption from active military service, and even from the annual drill of the militia, if they cannot, in the opinion of the school-inspector, be spared from their duties. Provision for the removal of the incompetent or immoral. A provision for the support of decayed teachers.

*Fourth.* The authorities which regulate the schools, and render them a branch of the general government, and the

\*M. Cousin calculates the number of children between the ages of seven and fourteen in Prussia, in 1831, at 2,043,030, and shows, from the returns of the number of pupils in the different primary schools, that 2,021,421 were in actual attendance, leaving but 21,609 to be accounted for by the children educated in private schools, at home, and in the lower classes of the gymnasia. The latter, in 1833, amounted to 17,935. (Cousin's Report, Amer. Edit. p. 311.) Nearly one-sixth of the entire population of the kingdom would thus appear to be in the schools. The ratio, however, varies exceedingly in different parts of the kingdom. In the provinces of Saxony, Silesia, and Brandenburg, the proportion was, in 1831, higher than one-sixth, while in the Rhenish provinces, it was one-seventh, and in Posen as low as one eleventh. (Kroger's Appendix to his translation of Cousin, p. 213.) The number is swelled to that stated above, the sixth of the entire population, by the introduction into the account of children under seven years of age, the pupils of the infant schools, the work-schools, orphan asylums, &c., being included under the head of those who are in the elementary schools.

† In 1833, there were eight hundred and twenty-eight burgher schools in Prussia. (Kroger's Appendix to his Translation of Cousin.)

‡ In 1833, there were forty-three such seminaries in Prussia, attended by two thousand and thirty-six pupils, and furnishing nearly eight hundred teachers annually.



teachers in fact, its officers. In a country like Prussia, this connexion secures to the teacher the respect due to his station, and thus facilitates the discharge of his important duties. It gives the government, however, almost unlimited control over the schools, securing that no principles shall be disseminated in them which are not in accordance with the wishes of the central authority, and even providing for the propagation among the people of those in which it may desire them to be educated.

Having thus completed a brief sketch of the system of public instruction, I proceed, according to the division made in the beginning of this chapter, to describe some of the individual schools. It will be seen that the subjects of popular instruction are excellent in themselves, and that the methods of teaching are in general, the most improved. Prussia has certainly set a noble example in this respect. It is true that the government has provided that the incidentals of instruction, which exert so strong an influence on the mind, shall all tend to educate the people in sentiments of attachment to the existing order of things, but they would have been untrue to their political system had they not done so, and this fact, instead of leading to a rejection of the experience of their schools by nations more advanced in the true principles of government, should stimulate them to a like care in their systems of education.

As already stated, the primary schools of Prussia are of two kinds, the elementary and the burgher or middle school. The first is not an introduction to the second, as might be supposed by its name, but is intended for such children as are to receive an elementary education, only remaining at school until thirteen or fourteen years of age. These schools in the cities and large towns educate the poor, and are frequently designated as poor or charity schools, (*Armen-schulen*.) The others are intended for children whose parents can dispense with their services until fifteen or sixteen. Their pupils generally become artisans or shop-keepers.

There are, in fact, two grades of burgher schools, of which the higher, usually found in the cities, besides preparing its pupils as just stated, enables them to enter the third class of the grammar school, or gymnasium. The instruction in them is altogether better than that in the elementary schools, which latter, as far as I saw them, were inferior to those of Holland. The lower burgher schools, on the contrary, afford an elevated standard of true primary instruction, and Prussia has special reason to be proud of the whole class.

Uniformity of instruction throughout this kingdom would, no doubt, be practicable in a general sense, by means of the system already described. There is, indeed, at present, a close approach to uniformity of spirit in the schools, and in the subjects taught. Very wisely, however, the methods of teaching are not prescribed, and though a common sentiment among the directors of the seminaries for teachers produces an approximation to uniformity of method among the younger masters, yet even among these, there is some diversity of opinion and action. When we speak, then, of uniformity in the Prussian schools, it must be understood with great limitations, or we give a theoretical view of what might be, instead of a practical one of what is.

#### PUBLIC ELEMENTARY SCHOOLS OF BERLIN.

The Prussian system admits of so much license in its minor arrangements, that the elementary schools of Berlin, as at present established, vary from the parochial system in use in the kingdom at large, resulting from a plan proposed to the regency by school-councillor Reichelen, and adopted in 1827. There are at present nine public elementary schools in the city, but if the classes were confined to seventy-five pupils each, as originally intended, fourteen schools would be required, according to the calculations of Mr. Reichelen.—The number of pupils, however, in charge of a single master, is greater than that just stated, thereby impairing essentially the efficiency of the schools.

The masters receive fixed salaries,\* the fees which they

\* The salary of the head-master of both boys and girls' schools, is two hundred and twenty-five dollars per annum, besides which he has his lodging and certain allowances, amounting to from seventy-five to a hundred and twelve dollars. The pupils pay at the minimum

collect, being paid over to the school-committee. Of the two schools of this kind at Berlin, which I visited, one came up to the requirements of the law in the branches of instruction, except in the omission of linear drawing. In the other, both drawing and natural history were omitted. In the first, the branches were, 1. Religious instruction. 2. Reading. 3. German language. 4. The Geography and history of Prussia. 5. Arithmetic. 6. Elements of Geometry. 7. Weights and measures of the country. 8. Natural history. 9. Writing. 10. Singing. In none of these schools is the physical education of the pupils attended to. In each there is a girls' school, separated from that of the boys, and giving similar instruction, except that a portion of the time is occupied in works appropriate to the sex.

According to rule, these schools should have two classes for each sex, the head-master teaching the first, and the assistant the second; in one, however, the two classes were sub-divided, forming four. The lowest class learns to read and write a little, and is then promoted. In the school of two classes, the lower contained pupils from six to nine, and even ten years of age, and the upper class pupils from eight and nine to twelve and thirteen years. This division is much inferior to that of the school for the poor at the Hague, which I have already described; it requires the union in one class of pupils in very different stages of progress, and renders simultaneous teaching almost out of the question. The lower class has twenty-six, and the upper thirty-two to thirty-four hours of instruction per week, the former having one hour less per day than the latter, which is a good arrangement. There is a short interval of recess in the morning exercises. 1. The religious instruction consists, in all the schools, of Bible history, catechism, and reading the Bible. The schools are for Protestants, and the Lutheran catechism is used. 2. The reading is taught by the phonic method, already described at length under the head of primary instruction in Holland. In many schools, the reading-board and letter-blocks are used; in one of those which I visited, writing was taught with reading. Exercises of thought and speech are interwoven with the elements of reading. The reading-books\* are various, and combine progressive instruction in this branch with incidental information in morals, the history of the country, history of the church and of sects, biography, geography, natural history and elementary physics, grammar, &c. This incidental method is however, far from giving sufficient instruction, unless combined with the direct, though, by keeping it in view, the exercises in reading are prevented from degenerating into mere lessons of sounds. From the books which are allowed by the highest school authorities to be used, the committee of any particular school, after consulting the master, adopt such as they please, and when the teacher wishes a change, he applies to the same authority. The list of approved books is always sufficiently large to admit of the exercise of the individual judgments of the master and committee. The analysis of words and sentences is attended to in these schools, and exercises of induction are practised, especially where younger masters from the teachers' seminaries are employed. As the method of teaching depends principally upon the master, it sometimes varies, even in the same school. If the precise routine were laid down, the spirit would be different, and thus, at last, it is the kind of education given to the teacher which determines the character of the school. It may be stated, however, that the instruction is either simultaneous or individual. 3. The German requires no special remark; it includes instruction in grammar. 4. The geography is taught by beginning with an outline of general geography, referring

three, and at the maximum thirty cents per month. In one of the schools which I visited, the fees amounted in all to about nine dollars and seventy-five cents per month, the two-fifths of which, forming the master's perquisite, amounted therefore to about forty-seven dollars a year.

\* Hempel's "Common School Friend," which I found in use in the schools, appears to me, in general, to be a good compilation, though the ideas of history which it gives are very limited. The statements in regard to North America are, besides, of a kind to lead the child to suppose that the country is still peopled by red men, who are without the institutions of the old world, which are enumerated to shew the superior advantages of civilized over savage life.

to maps, and learning from books. There is a great deficiency in the implements for teaching this branch. 5. Both mental and written arithmetic are taught. In one of the schools, the ground-work is laid according to Pestalozzi's method, and the extent of the course is to the single rule of three, inclusive. Some of the pupils acquire great facility in mental arithmetic, but I have seen better results in this branch in the English schools. 6. The geometry consists of the elements of form, according to Pestalozzi. 7. The weights and measures are taught as in our schools, by committing tables to memory, and not, as in Holland, by actual reference to the standards themselves. 8. The writing is taught by copying from ordinary copy-boards, first on the slate, and then on paper. The black-board is used in some cases. Writing from dictation is resorted to for orthography. The proficiency in this branch is, however only tolerable. 9. Vocal music is taught by note, and particular attention is paid to church music. The school is begun and ended with a psalm or hymn, as well as with prayer.

The ordinary discipline is conducted without corporal punishment, though it is allowed in extreme cases. The individuals of the classes retain the same places, unless in cases of gross neglect, or as a kind of punishment. These places are in some schools, regulated in the upper classes by a writing-lesson at the end of the month, in which correctness in spelling, as well as neatness of hand-writing are taken into the account.

The arrangements of the school-houses both interior and exterior, have undergone considerable change of late years. The eighth town school is in a very neat building, and the rooms are commodious, and provided with raised platforms, for the benches and desks; all those, however, occupied by the larger classes are defective in ventilation.

These schools are reasonably good, and if they were in a country less celebrated for the character of its public instruction than Prussia, would not call for special remark, but they can by no means be held up as having attained all that is possible, or even that is required, in establishments of the kind.

In addition to these, charity-schools, each of which is common to both sexes, there are nine schools of industry, (*Erwerbschulen*) for girls; in these, the pupils work, receiving a small compensation, besides instruction in the rudiments. There are also evening schools at which the attendance is voluntary, and where those who have gone through the elementary courses may revise or extend their knowledge.

#### BURGER OR MIDDLE SCHOOLS.

These are the higher primary schools already referred to. They owe their superiority over the others not only to the greater variety of subjects of instruction, and to the greater extent to which they are carried, but to various minor advantages. Among the first of these may be stated the greater number of classes, admitting of a nearer equality in the knowledge of the pupils, and hence of more efficient instruction. The number of regular classes in these schools, is usually from four to six, and in the others only two. Next, the number of pupils under the charge of one teacher is less than in the elementary schools, which is attended with the same effect as just stated, especially where individual teaching is attempted, in connexion with the simultaneous method. In the whole kingdom of Prussia, in 1831, the average number of pupils to one instructor in the elementary schools, was seventy-seven, and in the burgher schools, thirty-seven, or less than half the former number. Again, the higher salaries paid in these schools secures to them in general, advantages in the choice of teachers not possessed by the others, which frequently must be entrusted to inferior abilities or experience. There is, further, no doubt, as far as observation may be trusted, that the grade of intelligence of the children in the burgher schools is higher than in the others, their opportunities of domestic culture, and the incentives to exertion are greater, and the intercourse of home is usually more improving. All these, and perhaps other causes, tend to widen the interval between these classes of schools. The connecting link between the higher burgher and the elementary schools of the cities, is afforded by the burgher schools of the smaller towns, sometimes called lower burgher schools. Both divisions educate the same classes of individuals, but the wants, both material and intellectual, of the tradesman of the small town

and of the city are very different, and the instruction to which they aspire differs essentially. The village tradesman of Prussia is satisfied to be able to read and write German and to cast accounts, while the city tradesman of the same class must be better informed in these, and add a knowledge of French and some mathematics to his elementary acquirements. Besides, the higher burgher schools are made to serve as preparatory establishments for the gymnasia, and the plan of instruction is modified accordingly, being in the higher classes so far changed as almost to remove them from the sphere of legitimate primary instruction. It is the lower class of these schools which appears to me to afford a suitable standard for the primary grade, in regard to the nature, extent, and methods of instruction, and the classification in general of the school. Divesting the higher schools of certain features which do not appear essential, they afford excellent models, upon which it would not be too much to ask that the primary schools should be arranged, or to the standard of which they should endeavor to attain. Postponing further remark on this subject, until some of the individual schools have been described, I proceed to an account of the seminary school at Weissenfels, belonging to the lower burgher school class, and of three higher burgher schools, presenting varieties of the same grade of establishment, namely, the Dorothean higher city school, and the seminary school of Berlin, and the higher burgher school of Potsdam. I have selected these as characteristic specimens of the best schools of the kind which I visited, and they are all which my limits will permit me to present.

#### SEMINARY SCHOOL AT WEISSENFELS.

This is a higher elementary, or lower burgher school, attached to the seminary for teachers at Weissenfels, and is under the charge of the director of the seminary.\* The school is intended not only for the benefit of the citizens of Weissenfels, but also, as a model school, in which the pupils of the seminary may reduce to practice, under the eye of their teachers, the lessons of theory in the art of teaching, which forms an important part of the course of the seminary.

The school has four hundred pupils, male and female.—They are divided into five classes, in the three lower of which the two sexes receive instruction in common, being separated in the highest. Each class averages thus eighty under the charge of one master, who is, however, assisted by the pupils of the seminary. The following table shows the subjects of instruction, and the amount of time devoted to each. The whole course usually lasts seven years, when the pupil enters at the age of six or seven.

Table of the distribution of time in the "Seminary School" at Weissenfels.

SUBJECTS OF INSTRUCTION.	NO. OF HOURS PER WEEK.			
	Boys' Class.	First Class.	Second Class.	Total.
Religious Instruction, - - -	6	5	4	434
German Language, - - -	4	5	5	121
Reading, - - -	2	4	4	1325
Inductive Exercises, - - -	-	-	-	11
Arithmetic, - - -	4	4	4	426
Geometry, - - -	3	-	-	6
Geog., Hist., Nat. Hist., &c. -	2	2	3	117
Writing, - - -	2	4	4	630
Drawing, - - -	2	2	1	111
Singing, - - -	3	2	2	317
Total,	30	26	26	

\* Dr. Harnisch.

† This column is calculated on the supposition that the pupil remains in the school from six until thirteen years of age, passing through the lowest class in one year, and each of the others in two years.

‡ As the instruction in writing and reading is combined, I have placed half of the number of hours under each head.

• Of these eight hours, three are combined reading and writing, and two copying.



The religious instruction consists in the narration of Bible stories, and in pointing out the appropriate moral; in Bible history in a more connected form; in learning Luther's Catechism, and committing parts of the Bible to memory. The pupils are also expected to give an account of the Sunday's sermon. The study of *German* includes the grammar. There are exercises specially of orthography and syntax in the upper classes. Poetry is also committed to memory.

The elements of *reading and writing* are taught together according to Dr. Harnisch's method, already described as in use at Halle. In the upper classes, the reading-lessons are intended not only to give fluency in the art of reading, but also incidental instruction in grammar and general knowledge.

Direct exercises of *induction* are in use only in the lowest class.

The instruction in *arithmetic*, extends through fractions; mental arithmetic preceding written through all the rules. That of *geometry*, consists merely of the elements of form, according to Pestalozzi.

Under *geography* and *history* are included both physical and political geography and biography. With the physical geography is interwoven an account of the productions of nature and art of different countries. In the summer, the pupils are made acquainted with the botany of the environs, and in winter receive lessons upon animals, &c.

*Writing* on paper is a matter of privilege attainable by those who improve sufficiently. The others write on slates. The first lessons in drawing are introductory to writing; afterwards it is made a separate branch.

The higher classes learn *music* by note, and sing twice a week in company with the pupils of the normal school. The violin is used in leading the class singing exercises.

The discipline and instruction are admirable. The teachers have little occasion to use punishment. The instruction is chiefly given viva voce, and the pupils in general appear interested in their studies. A book is kept for the record of delinquencies, which is examined by one of the superior masters once a week, and notice taken of the faults recorded.—The director examines it once a month, and admonishes those who need it. Corporal punishment is resorted to only in extreme cases. According to the views of director Harnisch, as to what a true burgher school should be, the pupils who have gone through the courses of this school are just fit to enter one, and I must express my entire approbation of thus making the elementary school merely a step in the general course of education, and one which leads to further advance.

The schools next to be described will be found to vary very considerably in their arrangements from this one, forming the opposite extreme as it were, of the class, but a connecting link will be supplied by the burgher school of Potsdam, which is intended to cover the ground occupied by both divisions.

#### DOROTHEAN HIGHER CITY SCHOOL.

This is a burgher school of recent establishment, which I was recommended to visit, as one of the best in Berlin. The city has recently erected a very neat and commodious building\* for it in the Dorothean quarter of the town, from which the school takes its name. The pupils are admitted at six years of age, and may remain until sixteen, when they are prepared to enter a business life. If intended for a professional career, they pass from the second class to the third of a gymnasium or grammar school at about fourteen. At present, there is no first class, but this deficiency is to be supplied, and it is intended that a pupil of capacity, who has passed through its studies, shall be prepared for the second class of a gymnasium. In this case, private lessons in Greek must be taken, and I should judge that, when established, this class will be composed only of those who intend to finish their education here, so as to pass to a "real school," or to some "technical school." Many pupils are actually prepared here for entrance into the third class of a gymnasium, and the courses have been in part adapted to this purpose. The certificate of the first class of this school, as of others of its grade, gives the privilege of claiming but one year of military service, and qualifies for employments in the government bureaux, which, however, do not in general require a knowledge of Latin.

\* The cost of the building was stated to have been 25,000 thalers, (\$18,750.)

The school\* now consists of five classes, of which the sixth and fifth, the lowest two, have courses of one year each, and the others of two years. There is a head-master and four regular teachers, besides four assistants or special masters, who are employed during part of the school-hours, or in teaching particular subjects. In the lower classes, each master teaches, in general, the whole round of subjects in which his class is occupied. In the upper classes, the teachers are confined to a few subjects. The arrangement of this matter is, however, at the discretion of the director or head-master, who varies it as appears best for the interests of the school.† In some of the classes, there is a special master for religious instruction, which, however is not usual in Prussia.

The methods of instruction in this school are, in general, most excellent, and I was particularly struck with the small number of text-books employed. This is not peculiar, however, to this establishment, but is a feature in every good school in Germany. The master is expected to be so fully imbued with his subject, and expert in his art, as to be able to impart knowledge principally orally to his pupils, and in such a way as to adapt it to each individual; hence, books are chiefly required for study at home, and individual training is possible to an extent which no routine system with books would permit.

The following statements give the course of instruction in detail. Leaving out some of the subjects as unnecessary for elementary instruction, I can see no reason why a very similar programme should not be adopted in the lower schools, the period of instruction being nearly the same, in the two cases.‡ The difference between the instruction in a Berlin charity school and in a burgher school like this, is at present very great indeed.

#### RELIGIOUS INSTRUCTION.

Class VI. Stories from the Old Testament.

Class V. Stories from the New Testament.

Class IV. Bible History.

Class III. Reading and explanation of selections from the Scripture.

Class II. The evidences of Christianity.

The stories alluded to in the course of the sixth and fifth classes, are the most remarkable biographies of the Old and New Testaments. The stories are chiefly narrated by the teacher, frequently in the words used in the sacred volume; and in the fourth class, these same histories are read in the Bible itself. The narrations in the lower classes admit of various explanatory remarks and illustrations of the history, the natural history and geography referred to. The subject of the narrative being thus familiar to the pupil, he is interested by the beautiful simplicity of the language of the Bible, which otherwise he might fail to perceive, since his attention would be engaged with the incidents about which he was reading, rather than with the style. The study of the Evidences of Christianity would, it seems to me, be more suitable to the age of the first than of the second class.

#### GERMAN LANGUAGE.

Class VI. Exercises of speech and thought (inductive exercises).—Preparatory exercises in Reading by the phonic (lautir) method. Fluent reading of words and sentences.

Class V. The most important parts of etymology explained by reading lessons.

Class IV. Exercises of etymology. Reading from a text-book. Stories narrated for written exercises. Orthographical exercises.

Class III. Grammatical analysis of sentences.

Class II. The same continued. Original written exercises and descriptions.

The exercises of speech and thought are admirably conducted. In teaching to read, the letter-box and composition-board, similar to that which I have already described in the chapter on the schools of Holland, are used. The lowest class is divided into two sections in receiving this instruction,

\* At the date of my visit, in December, 1837, the school numbered one hundred and ninety-seven pupils. The fees were nearly five dollars per quarter, but it was intended to reduce them to less than four dollars. Should these at any time not prove adequate to the support of the school, the city must supply the deficiency.

† The masters are appointed by the school-committee, on the nomination of the head-master.

‡ The expense I do not consider a reasonable objection, for if the people have a right to instruction, they should be well taught.

so that each teacher has not more than twenty-five pupils under his charge. The reading exercises throughout the course, will be found included under the title of "German." Diesterweg's reading book for schools is used in the lower classes.

#### LATIN LANGUAGE.

Class IV. Regular verbs and other parts of Speech. Translation of Gedike's Reading Book.

Class III. Constructions varying from the German. More difficult parts of Gedike's Reading Book. Cornelius Nepos.

Class II. Irregular parts of etymology. Syntax. Special reference to the differences from the German. Ovid.

Although the Latin is begun with the fourth class, it will be seen hereafter, that it occupies but a small portion of the time of each week, and as far as mental culture is concerned to those who leave off this study at fourteen, I cannot say that observation indicated its utility. On the contrary, an imperfect knowledge is acquired, which can produce no good effect.

#### FRENCH LANGUAGE.

Class V. Exercises in reading and translating small sentences.

Class IV. Auxiliary and regular verbs. Exercises on simple sentences.

Class III. Irregular verbs and rules on the use of pronouns. Numa Pompilius begun.

Class II. More difficult parts of the French Grammar. Numa Pompilius completed.

#### ARITHMETIC.

Class VI. The four ground rules, with numbers up to one thousand.

Class V. Denominate numbers, and preparatory exercises in fractions.

Class IV. Fractions.

Class III. Proportions, with their applications.

Class II. Elements of Algebra, Involution, and Evolution.

The course of arithmetic, as taught in the seminary school, of which I shall next give an account, is, I think, better arranged than this.

#### GEOMETRY.

Class V. Regular figures, &c. from the Elements of Geometry.

Class IV. Lines, angles, and triangles.

Class III. Circles and Polygons. Mensuration of plane figures.

Class II. Similarity of figures, &c.

The Geometry is here introduced earlier than in the seminary school, and, in general, the studies of the fifth class appear to me rather too much diversified for their age.

#### NATURAL HISTORY.

Class IV. Domestic animals.

Class III. Viviparous animals.

Class II. Birds and fishes, illustrated by a small collection.

Physics is also taught in the second class, so far as to give a knowledge of the general properties of bodies.

#### GEOGRAPHY.

Class V. Knowledge of home. The district. The province. The kingdom.

Class IV. General geography.

Class III. Principal countries of Europe.

Class II. Europe more in particular.

The knowledge of home includes an account of its history, its monuments, distinguished men, &c. The course follows, in general, the plan already so often spoken of, and more particularly described in the schools of Halle and Haarlem.

#### HISTORY.

Class IV. A general view of the more important historical events, with the study of particular ones in detail.

Class III. Ancient history.

Class II. Modern history, to the time of the Reformation.

The general history is rather a series of biographical sketches than a regular narration of events, and serves well as an introduction to systematic historical studies.

#### WRITING.

Class VI. Preparatory exercises in the lower division. Letters and words in the upper.

Class V. Single letters and small sentences.

Class IV. Writing from copy-slips.

Class III. Writing with special reference to orthography.

The elements of writing are taught according to Pestalozzi's method, the upper and lower limits of the letters being given by horizontal and the slope by inclined lines. In regard to this branch, it may be remarked, that very few schools which I visited, did not present a satisfactory proficiency.

#### DRAWING.

Class VI. Preparatory exercises. Regular figures.

Class V. Drawing of bodies in elevation.

Class IV. Solids bounded by plane figures and straight lines.

Class III. Solids bounded by plane figures and straight lines, with shadows.

Class II. Solids bounded by curved surfaces.

The method of instruction is that devised by Mr. P. Schmidt, which I shall describe more particularly when speaking of one of the so called "real schools" of Berlin, where he is teacher.

Singing is taught by ear in the two lower classes, and by note in the upper. The execution by the second class, which I heard, was excellent. They sing in parts and by note.

The following table shows the time devoted, in school, during the week by each class to the several subjects of instruction:—

Arrangement of the branches of instruction at the Dorothean Higher City School.

SUBJECTS OF STUDY.	HOURS PER WEEK.					
	Second class.	Third class.	Fourth class.	Fifth class.	Sixth class.	Total.
Religious Instruction, - - -	2	2	2	2	4	18
German Language, - - -	4	3	5	6	10	42
Latin, - - - - -	5	6	4	-	-	30
French, - - - - -	4	4	4	2	-	26
Arithmetic, - - - - -	3	3	3	4	4	26
Geometry, - - - - -	2	2	2	2	-	14
Natural History, - - - -	4	2	2	-	-	16
Geography, - - - - -	2	2	2	1	-	13
History, - - - - -	2	2	2	1	-	13
Writing, - - - - -	2	2	2	4	4	16
Drawing, - - - - -	2	2	2	2	2	16
Singing, - - - - -	2	2	2	2	2	16
Total,	32	32	32	28	26	

The three higher classes have, as shown by the table just given, six hours of recitation every day, except Wednesday and Saturday, which are half-holidays, and on which they have but four hours. The lowest class has but five hours for four days in the week, and three the other two. The increase of school hours in the upper classes, is manifestly a proper arrangement.

This distribution of time assigns to language, including German, Latin, and French, ninety-eight hours; to sciences and the kindred branches, namely, arithmetic, geometry, natural history, geography and history, eighty-two; to the branches which specially educate a part of the senses, while they have important applications in after life, as writing, drawing and singing, forty-eight hours, and to morals and religion eighteen hours. Similar tabular statements will be furnished for the other schools of this class, by which numerical comparisons may be instituted.

#### CITY TRADE SCHOOL OF BERLIN.

This school was founded to give a more appropriate education for the mechanic arts and higher trades than can be had through the courses of classical schools. It is a great point gained, when the principle is admitted that different kinds of education are suited to different objects in life; and such an admission belongs to an advanced stage of education. As a consequence of a general sentiment of this kind, numerous schools for the appropriate instruction of those not intended for the learned professions grow up by the side of the others. The youth is thus secured a suitable education, no matter what may be his intended calling, and is not forced to accept a training necessarily imperfect, from the time which he can devote to it, and furnishing him with but little of the knowledge which he requires in his pursuits. This sentiment prevails extensively in Prussia, and indeed throughout Germany, and as a consequence of it, there are better opportunities for the instruction.

\* Six hours of the instruction called "German," are devoted in the sixth class to learning to read, and four to "Exercises of speech and thought."

† Two hours of this instruction is given to physics.

‡ In the fifth class, geography and history are combined under the title of "Knowledge of home."

§ This column is obtained by doubling the numbers in those classes of which the course is for two years, and adding the numbers for the other classes.



tion of young men, not intended for the learned professions, than in any other part of Europe.

The city of Berlin is the patron of the trade school which I am about to notice, as the king is of the real school already spoken of. Its stability is thus secured, but the means of furnishing it with the necessary materials for instruction are liberally provided.\* The trade school is a day school, and consists of five classes, of which the lowest is on the same grade as to age and qualification at admission, as the fourth class of a gymnasium. It is assumed that at twelve years of age it will have been decided whether a youth is to enter one of the learned professions, or to follow a mechanical employment, or to engage in trade, but the higher classes are not closed against pupils. Of the five classes, four are considered necessary for certain pursuits and the whole five for others; the courses of all but the first class last one year, that of the first, two years, a youth leaving the school at from 16 to 17 or 18 years of age, according to circumstances. During the year 1836-7, the number of pupils in the several classes were, in the first class, eleven; in the second, twenty-nine; in the upper third, forty-three; in the lower third, fifty-two; in the fourth, fifty; total, one hundred and eighty-five; from which numbers it appears that a considerable proportion of the pupils leave the school without entering the first class. The number of teachers is nineteen, five being regular or class teachers, and fourteen assistants. The director gives instruction.

The following list of the callings to which pupils from this school have gone on leaving it, will show that it is really what it professes to be, a school for the instruction of those who intend to follow occupations connected with "commerce, the useful arts, higher trades, building, mining, forestry, agriculture, and military life;" and further, that its advantages are appreciated by the class for whom it is intended. The list includes the pupils who have left the school from the first and second classes, in the years 1830, 1832, 1833 and 1837. From the first class, two teachers, five architects, one chemist, twenty-six merchants, one machinist, two calico-printers, two glass workers, one cloth manufacturer, one silk-manufacturer, one miner, thirteen agriculturalists, eight apothecaries, two gardeners, one painter, one mason, one carpenter, one tanner, one miller, one baker, one potter, one saddler, one soap-boiler, one cabinet-maker, two soldiers, one musician, five to public offices, one to the trade institution, six to a gymnasium. From the second class, forty-one merchants, one teacher, one chemist, one machinist, one ship-carpenter, nine agriculturalists, one sugar-refiner, three dyers, one tanner, one brewer, two distillers, one miner, two lithographers, one dye-sinker, three apothecaries, one dentist, four painters, two gardeners, three masons, five carpenters, one miller, four bakers, one butcher, one to the trade institution, three to public offices, two to a gymnasium, one musician, one veterinary surgeon, one soldier, being ninety from the first class, and ninety-seven from the second, in the period of four years.

In the course of instruction, the sciences and kindred branches are made the basis, and the modern languages are employed as auxiliaries, the ancient languages being entirely omitted. The subjects embraced in it are—religious instruction, German, French, English, geography, history, mathematics, physics, chemistry, technology, natural history, writing, drawing, and vocal music.

The courses are fully laid down in the following list, beginning with the studies of the lowest or fourth class.

#### FOURTH CLASS.

**Religious Instruction.**† The gospel according to St. Luke, and the Acts of the Apostles explained, with a catechetical development of the truths of religion and ethical applications. Two hours per week.

**German.** Grammatical exercises in writing. Recital of poetical pieces, **French.** Grammatical exercises. Regular and irregular verbs. Reading from Lauren's Reader. One hour of conversation. Four hours.

**Arithmetic.** Mental and written, including proportions and fractions, with the theory of the operations. Four hours.

**Geometry.** Introductory course of forms. Two hours.

**Geography.** Elementary, mathematical, and physical geography. Two hours.

**Natural History.** In the summer term, elements of botany, with excursions. In the winter, the external characters of animals. Two hours.

**Physics.** Introductory instruction. General properties of bodies. Forms of crystals, specific gravity, &c. Two hours.

**Writing.** Two hours.

**Drawing.** Outline drawing and shadows, from models and copy-boards. Two hours.

**Vocal Music.** Two hours.

#### LOWER THIRD CLASS.

**Religious Instruction.** The Acts of the Apostles and the Epistles read and explained. Two hours.

**German.** Grammar with special reference to orthography and etymology.—Written exercises upon narrations made by the teacher. Delivery of poetical pieces. Four hours.

**French.** Translation from French into German from Gredicke's Chrestomathy. Grammar; irregular verbs. Extemporals, and translations from German into French. Four hours.

**Arithmetic.** Partly abstract, partly practical, from Diesterweg's Instructor. Four hours.

**Geometry.** Determination of angles in triangles and polygons. Equality of triangles. Dependence of angles and sides of triangles. Constructions. Three hours.

\* The present director of this school, Mr. Kloden, was formerly director of the higher burgher school at Potsdam, and is one of the most distinguished teachers in his line in Prussia.

† Roman Catholic pupils are not required to take part in this instruction, which is communicated by a Protestant clergyman.

**Geography.** Physical description of the parts of the earth, except Europe. Two hours.

**Natural History.** Mineralogy. In summer, botany, the class making excursions for practical exercise. Man. Three hours.

**Physics.** General properties of bodies and solids in particular. Doctrines of heat, and their application to natural phenomena and the arts. Two hours.

**Chemistry.** Introduction. Atmospheric air. Experimental illustrations of chemistry, applied to the arts. Two hours.

**Writing.** Two hours. **Architectural and topographical drawing.** Two hours. **Drawing by hand,** for those who do not take part in the other. Two hours.

**Vocal Music.** Two hours.

#### UPPER THIRD CLASS.

**Religious Instruction.** Christian morals, from Luther's Catechism. Two hours.

**German.** Simple and complex sentences. Compositions on special subjects. Poems explained and committed. Four hours.

**French.** Translation from Gredicke's Chrestomathy, oral and in writing. Written translations from Beauvais' Introduction, from German into French. Grammar, examples treated extempore. Four hours.

**Arithmetic.** Properties of numbers. Powers. Roots. Decimal fractions. Practical Arithmetic from Diesterweg. Four hours.

**Geometry.** Similar figures. Geometrical proportion. Exercises. Mensuration of rectilinear figures. Three hours.

**Geography.** Physical geography of Europe, and in particular of Germany and Prussia. Two hours.

**Natural History.** Continuation of the mineralogy of the lower third class. Review in outline of zoology and the natural history of man in particular. Botany, with excursions in summer. Three hours.

**Physics.** Electricity and magnetism, with experiments. Two hours.

**Chemistry.** Water and non-metallic bodies, with experiments. Two hours.

**Writing.** Two hours. **Architectural and topographical drawing.** Two hours. Some of the pupils during this time are engaged in ornamental drawing.

**Vocal Music.** Two hours.

#### SECOND CLASS.

**Religious Instruction.** Explanation of the first three gospels. History of the Christian religion and church to the Reformation. Two hours.

**German.** Correction of exercises written at home, upon subjects assigned by the teacher. Oral and written exercises. Introduction to the history of German poetry. Three hours.

**French.** Grammar; extemporals for the application of the rules. Written and oral translations from German into French, from Beauvais' Manual, and vice versa, from Ideer and Nolte's Manual. Four hours.

**English.** Exercises in reading and speaking. Translation into German, from Burkhardt. Dictation. Verbs. Two hours.

**Arithmetic.** Commercial Arithmetic. Algebra, to include simple and quadratic equations. Logarithms. Three hours.

**Geometry.** Circles. Analytical and plane trigonometry. Three hours.

**Geography.** The states of Europe, with special reference to their population, manufactures and commerce. Two hours.

**History.** Principal events of the history of the middle ages and of later times, as an introduction to recent history. One hour.

**Natural History.** Mineralogy. Physiology of plants. Three hours.

**Chemistry.** Metallic bodies and their compounds, with experiments. Three hours.

**Architectural, topographical, and plan drawing.** Drawing with instruments. Introduction to India ink drawing. Beginning of the science of constructions. Two hours.

**Drawing.** From copies, and from plaster and other models. Two hours. This kind of drawing may be learned instead of the above.

**Vocal Music.** Two hours.

#### FIRST CLASS.

**Religious Instruction.** History of the Christian religion and church continued. References to the Bible. One hour.

**German.** History of German literature to recent times. Essays. Exercises of delivery. Three hours.

**French.** Reading from the manual of Buchner and Hermann, with abstracts. Classic authors read. Review of Grammar. Exercises at home, and extemporals. Free delivery. Correction of exercises. Four hours.

**English.** Syntax, with written and extempore exercises from Burkhardt. Reading of classic authors. Writing of letters. Exercises in speaking.

**Arithmetic.** Algebra. Simple and quadratic equations. Binomial and polynomial theorems. Higher equations. Commercial arithmetic continued. Three hours.

**Geometry.** Plane trigonometry and its applications. Conic sections. Descriptive Geometry. Three hours.

**History.** History of the middle ages. Modern history, with special reference to the progress of civilization, of inventions, discoveries, and of commerce and industry. Three hours.

**Natural History.** In summer, botany, the principal families, according to the natural system. In winter, zoology. The pupils are taken, for the purpose of examining specimens, to the Royal Museum.

**Physics.** In summer, optics with experiments. In winter, the system of the world. Three hours.

**Technology.** Chemical and mechanical arts and trades, described and illustrated by models. Excursions to visit the principal workshops. Four hours.

**Architectural and machine drawing.** Two hours. Those pupils who do not take part in this, receive lessons in ornamental drawing from plaster models.

**Vocal Music.** Two hours.

The pupils of this class are, besides, engaged in manipulating in the laboratory of the institution several hours each week.

The courses require a good collection of apparatus and specimens to carry them out, and this school is, in fact, better furnished than

any other of its grade which I saw in Prussia, besides which, its collections are on the increase. The facilities for the courses are

furnished by a collection of mathematical and physical apparatus, a laboratory, with a tolerably complete chemical apparatus and series

of tests, a collection of specimens of the arts and manufactures (or technological collection), a collection of dried plants, and of engravings

for the botanical course, with a small garden for the same use, a collection of minerals, a collection of insects, a collection in

comparative anatomy, a series of engravings for the drawing course, and of plaster models, a set of maps, and other apparatus for geog-

raphy, some astronomical instruments, and a library. The pupils

are taken, from time to time, to the admirable museum attached to the university of Berlin, for the examination of zoological specimens especially.

That this school is as a preparation for the higher occupations, and for professions not ranking among the learned, the equivalent of the gymnasium is clearly shown by the subjects and scope of its courses, and by the age of its pupils. Some of these occupations require no higher instruction, others that the pupils shall pass to the special schools introductory to them. So, also, many of the pupils of the gymnasium pass at once into active life, others enter the university.

The class of schools to which the two last described belong, are most important in their influence. In many countries, an elementary education is the limit beyond which those intending to enter the lower grades of the occupations enumerated in connexion with the City Trade school of Berlin, do not pass; and if they are inclined to have a better education, or if intending to embrace a higher occupation, they desire to be better instructed, they must seek instruction in the classical schools. The training of these schools is, however, essentially different from that required by the tradesman and mechanic, the verbal character of the instruction is not calculated to produce the habits of mind in which he should be brought up, and the knowledge which is made the basis of mental training is not that which he has chiefly occasion to use. Besides, were the course ever so well adapted to his object, the time at which he must leave school only permits him to follow a part of it, and he is exposed to the serious evils which must flow from being, as it were, but half taught.

In fact, however, he requires a very different school, one in which the subjects of instruction are adapted to his destination, while they give him an adequate intellectual culture; where the character of the instruction will train him to the habits which must, in a very considerable degree, determine his future usefulness; and where the course which he pursues will be thorough, as far as it goes, and will have reached before he leaves the school the standard at which it aims. Such establishments are furnished by the real schools of Germany, and as the wants which gave rise to them there, are strongly felt every where, this class of institutions must spread extensively. In Germany they are, as has been seen, no new experiment, but have stood the test of experience, and with various modifications to adapt them to differences of circumstances or of views in education, they are spreading in that country. As they become more diffused, and have employed a greater number of minds in their organization, their plans will, no doubt, be more fully developed.

It is certainly highly creditable to Germany that its "gymnasias," on the one hand, and its "real schools" on the other, offer such excellent models of secondary instruction in its two departments. The toleration which allows these dissimilar establishments to grow up side by side, admitting that each, though good for its object, is not a substitute for the other, belongs to an enlightened state of sentiment in regard to education, and is worthy of the highest commendation.

TABLE  
OF THE  
Distribution of studies in the City Trade School of Berlin.

SUBJECTS OF INSTRUCTION.	NO. OF HOURS PER WEEK.				
	First Class.	Second Class.	Upper Third Class.	Lower Third Class.	Fourth Class.
Religion, . . . . .	1	2	2	2	2
German, . . . . .	3	3	4	4	4
French, . . . . .	4	4	4	4	4
English, . . . . .	2	2	2	2	2
Arithmetic, . . . . .	3	3	4	4	4
Geometry, . . . . .	3	3	3	3	2
Geography, . . . . .	2	2	2	2	2
History, . . . . .	3	1	2	2	2
Natural History, . . . . .	2	3	3	3	2
Physics, . . . . .	3	2	2	2	2
Chemistry, . . . . .	3	2	2	2	2
Technology, . . . . .	4	2	2	2	2
Writing, . . . . .	2	2	2	2	2
Drawing, . . . . .	4	4	2	2	2
Vocal Music, . . . . .	2	2	2	2	2
Total, . . . . .	34	32	32	32	28

#### FRANK FOUNDATIONS AT HALLE.

##### *Methods of teaching Reading, and Writing, and Geography in the Elementary Orphan School.*

The reading and writing are taught at the same time, according to the method of Harnisch, developed by Scholtz. The child makes a letter on his slate, after a copy upon a black-board, and is taught to name it. The German language having a fixed sound for each letter, when the sound of the letter has been learned, not its common arbitrary name, but the sound which it has in composition, the pupil has made some progress towards knowing how to form combinations, which is the next step, the vowels being placed alternately before and after the consonant. These combinations are first written on the slate and then pronounced. The next exercise consists in placing a vowel between two consonants, which is followed by other simple combinations. These being classified by careful study, the child is soon able to compose simple sentences, in which his ideas are developed, so that the mechanical operation of writing and of reading, is interspersed with intellectual exercise. In this the talent of the teacher is strikingly exhibited, and a prescribed routine of instruction would fail in its object. The written letters being once learned, the next step is with the printed, and a reading book is not introduced until the child has felt the necessity of it in his further progress. It is then a relief, and not a task.

I saw, here, a class which had been under instruction for only nine months, the pupils of which wrote short sentences very legibly, in a hand of medium size, spelled them correctly and read them distinctly.

This method of learning to read is, in a great degree, inapplicable to our language, in which the vowel sounds are so numerous; but the union of reading and writing may have its advantages. The characters of the ordinary German writing are composed of very different forms from those of our round hand, and which are more simple and in general, angular; hence, no considerable dexterity of hand is required to trace the letters, and only a brief practice in elementary forms is required. I saw classes of children, of ten and eleven years old, at Zurich, who, by being constantly practised in this method, from their earliest instruction, had acquired a very striking facility of expressing their ideas clearly and correctly in writing. The method produces a facility of composition, in writing, as that of Jacotet does a fluency in speaking. The orphans entering at ten years of age, do not, in general, pass through this class.

The geographical instruction, founded upon the method of Pestalozzi, proceeds on strictly inductive principles, and is an example of how much may be done by making the pupil proceed from the known to the unknown. The following was the course of a recitation which I attended on the subject. The teacher drew, first, from the knowledge of the pupils of different objects or bodies, a definition of the term body, then led them to define extension, dimensions, &c., and thus furnished them ideas of space. Sunrise and sunset were used for establishing the position of the cardinal points, and that of the class-room was determined in reference to these. Then commencing with home, with a map of the city of Halle, they gave an account of its localities, and the history connected with them. Widening hence its circles, the natural and political features of the surrounding district were described, always indicating the real directions of places, &c. The pupil thus grasps every step of geographical knowledge; begins with his own house, rambles through his own town, makes excursions in its neighborhood, sets out on his travels through his fatherland, visits foreign parts, sees what is worth seeing in the natural and artificial state of the country, finally learns the relation of its parts and of the whole to other worlds, and thus the interest is kept up from the first to the last. The reverse method I compared with this over and over again; some teachers have found this tedious, others have mixed the two systems, but, judging by the comparative results, I give this method greatly the preference over others, as not only teaching geography, and connecting history with it, but enlarging the general intelligence, while it improves the memory. In the upper classes, the pupils use maps without names, and draw maps on the board, marking localities, &c. At other times, the places are indicated by one pupil, and named by another, with other variations of exercise. In the lower classes, the responses were frequently repeated by the whole class, and in the upper classes the instruction was more addressed to individuals. With all the inherent merits of this method, I have seen it wholly marred by a dull teacher.

The inductive method applied to any branch of knowledge requires time, patience, and some skill on the part of the teacher. The routine method, or positive teaching, is much easier to the instructor. The former at every state unfolds the mind, the latter frequently overburdens it. If the positive knowledge acquired by the first is entirely lost, the habit of thinking remains, while, if acquired by the second, there is nothing left unless some improvement of memory, and general development of the reasoning powers.



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## ROYAL REAL SCHOOL OF BERLIN.

This institution was founded in 1747 by Counsellor Hecker, "that not mere words should be taught to the pupils, but realities; explanations being made to them from nature, from models and plans, and of subjects calculated to be useful in after life." Hence the name, "real school." The branches of instruction are, religion, Latin, French, English, German, physics, natural history, chemistry, history, geography, drawing, writing, and vocal music. Latin is retained as particularly useful in some branches of trade, and as enabling the pupil of this school to pass into the corresponding classes of the gymnasium.

The drawing department of this school is superintended by a teacher who has introduced a new method of instruction, particularly adapted to the purpose for which drawing is to be applied in common life and in the arts; a method which is found to enable a much larger proportion of the pupils to make adequate progress than the ordinary one of copying from drawings. In this method, the pupil begins by drawing from simple geometrical forms, those selected being obtained from models in wood or plaster, of a square pillar, (seven and a half inches high, and one inch and a half in its square section,) a niche, and a low cylinder (the form of a mill-stone.) The square pillar separates in joints, affording a cube and parallelopiped of different heights. The hemisphere which caps the niche may be removed, leaving the concave surface of its cylindrical part. The exercises of the pupil run thus:—First, to place upon a board, or upon his paper or slate, a point vertically above another, or so that the lines joining the two shall be parallel to the right or left hand edge of the board, paper, or slate. Second, to join them. Third, to place a point horizontally from the second, and at a distance equal to that between the first and second points. Fourth, to place one vertically over the third, and at a distance equal to that below the first, and to join the third and fourth. The first and fourth being then joined, a square is formed. After practice in this, the simple elevation of the cube is drawn. Next, a perspective, by the use of a small frame and silk threads, such as is common in teaching the elements of this subject, and by means of which the pupil acquires readily a knowledge of the practice. The drawing of lines in various positions, and with various proportions, terminates this division of the subject. The niche and cylinder afford a similarly graduated series of lessons on the drawing of curved lines, and the drawing of lines of different degrees of strength and of shadows is introduced. This is accompanied with some of the more simple rules of shadow and shade. More difficult exercises of perspective follow from natural objects and from works of art or mechanism, according to the direction to be given to the pupil's attainments and the amount of taste which he displays. This method of teaching has been introduced quite generally in Prussia, and with the best results as to the formation of accuracy of eye and of hand.

Table of the Distribution of Time in the Higher Burger School of Potsdam.

SUBJECTS OF INSTRUCTION.	First or Upper Burger School Class, 14 and 15 years of age.	Second Burger School Class, 13 and 14 years of age.	Middle Burger School or Upper Class, 12 and 13 years of age.	First Elementary Class, 10 and 11 years of age.	Second Elementary Class, 9 and 10 years of age.	Third Elementary Class, 8 and 7 years of age.	Total.
Religious Instruction,	2	2	2	3	3	2	24
German Language,	3	3	6	5	† 4	† 4	14
Reading,			2	3	4	6	26
Latin,	6	6		4	4	10	30
French,	4	4	4	2	1	22	
Arithmetic,	3	3	2	4	4	4	36
Geometry,	2	2	2	† 1	† 2	† 2	18
Natural History,		2	2	2	2	2	16
Geography,	2	2	2	2	2	1	14
History,	2	2	2	1			10
Technology,	2						4
Physics,	2	2	2				8
Chemistry,	4						8
Writing,	2	2	3	3	3	4	28
Drawing,	2	2	2	2	2	2	12
Singing,	2	2	2	2	2	2	20
Total.	38	31	34	34	31	28	

\* Includes orthography, 2 hours; grammar, 2 hours; exercises of style, 1 hour. † Includes exercises of memory, 2 hours. ‡ Preparatory exercises. § Elements of form. || The column of totals refers to the regular progression of five classes, and is obtained by doubling the numbers here given for the three elementary and two upper burger school classes.

## PRIMARY NORMAL SCHOOLS IN PRUSSIA.

Of the very interesting schools for the education of primary teachers in Prussia, I visited several, namely, those at Mersa, in the Rhenish provinces, of Weissenfels and Erfurt in the province of Saxony, and of Potsdam and Berlin in the province of Brandenburg. These are all of the class called "principal normal schools." The "small normal schools" are exclusively for the education of country teachers, and present, on a diminished scale, and with incomplete means, the same general principles with the others.

There is no general code of regulations for the normal schools, the practice being to select some teacher of known merit and tried skill for the head master or director of the institution, and to leave the organization to him, under the control of the provincial authorities. I have selected, as representing this class, an institution in which the pupils live in common, and another in which they board out of the school. It would be more agreeable to me to give the particulars collected in each of those which I visited; but this would be impossible within the limits of my report. I can truly say of this class of institutions, that I never visited one without being interested and instructed, and never made the acquaintance of the director of one of them without feeling that his place was worthily filled, and that it was wise to have such a man as much untrammelled by rules, regulations, and systems, as possible.

While these institutions hold out advantages to young men intending to become teachers, other avenues to the profession are not closed by them; on the contrary, all who can stand the required examinations may enter this career. Every year an examination is held at every "principal seminary" for those who intend to leave it, and of other candidates for admission to the teachers' profession. This examination takes place in presence of the teachers, of one or more commissaries named by the provincial school-board, and of a school-councillor of the regency in which the seminary is situated. The authorities of the province and regency also hold, about the same time, an examination for those who have studied at the universities, frequently candidates in theology, who intend to become teachers in the primary schools. The director of the seminary forms one of this board. The law requires that those who have appeared feeble at this trial, shall be examined three years subsequent thereto.

The examinations are of three kinds: in writing, viva voce, and by practical exercises of teaching. The written examination of candidates from the seminary, and of others who have not passed through a gymnasium, consists in answering some ten or twenty questions in history, geography, natural philosophy, natural history, arithmetic, and from the Bible. Besides which they set a bass to an air given for the purpose, and execute a drawing. The character of the handwriting appears from the exercises. The viva voce examination embraces the German language, reading, mental arithmetic, geometry, the art of teaching, and the reading of music. The exercise in teaching consists in giving a catechetical lesson upon some subject assigned by the examiner. The student-candidates (Literaten, order Studirten), and those examined for a second time, are questioned especially in regard to practical teaching. The candidates are divided, according to the results of the examination, into three classes, entirely satisfactory, satisfactory, and unsatisfactory. The subjects of examination are enumerated as follows: 1. Christian doctrine and explanation of the Bible. 2. Knowledge of the Bible and Bible history. 3. German language. 4. Style. 5. Reading. 6. Writing. 7. Mental and written arithmetic. 8. Geometry. 9. Natural philosophy and natural history. 10. Hygiene and gardening. 11. History of the earth and its inhabitants. 12. Drawing. 13. Vocal music. 14. Science of teaching. 15. Readiness in teaching. Besides which are, in addition, 1. Skill in playing on the organ. 2. Propriety in leading church music. Of the above named subjects, number 15 is considered the principal; the first seven constitute the more important, and the last seven the less important. When a candidate has been marked "entirely satisfactory" in all the branches, he receives a general mark of the same kind; when only in 15, and the first seven branches, the general mark satisfactory. A failure in one of the more important branches, would require a general remark of unsatisfactory.\* The results of these examinations afford a direct means of comparison between the young teachers educated in the seminaries and others, and serve to stimulate both classes, and especially to point out defects, where they exist in the schools for teachers.

## SEMINARY FOR TEACHERS AT WEISSENFELS.

This seminary, for the education of teachers for the elementary schools, is one of four belonging to the province of Saxony, and was last organized in 1822. It combines within its premises, or in the neighborhood, so as to be subject to the control of the same director, the following establishments: 1. The normal school, or seminary for teachers, a government institution. 2. A preparatory school subsidiary to the former, and established by the enterprise of its teachers. 3. A seminary school, or burger school, for four hundred pupils, already described. 4. An elementary school for poor children, of two hundred pupils. 5. A school for the deaf and dumb, of twenty-five

\* Order of the Provincial School board, November, 1834, quoted by Dr. Harms in his account of the seminary at Weissenfels.

pupils, established in 1923, and supported by the government. The last three mentioned schools afford practice to the students of the seminary.

The government of these establishments is confided to a director,\* who is responsible immediately to the provincial school-board in Magdeburg. He has the personal charge of the seminary in which he gives instruction, and of which he superintends the domestic economy, discipline, and police. He is assisted, in the seminary, by three teachers, who meet him once a week in conference, to discuss the progress and conduct of the pupils, the plans of instruction, and other matters relating to the school. There are also seven assistant teachers, five for the seminary school, and two for the deaf and dumb institution, who also assist in the seminary itself. Once a month there is a general meeting of the teachers of all the schools just enumerated, for similar purposes.

Applicants for admission are required to produce certificates of baptism, of moral conduct, and of health, besides an engagement on the part of their parents or guardians to pay an annual sum of fifty thalers (thirty-seven dollars) for maintenance. These papers must be forwarded to the director a fortnight before the day of examination. The candidates are examined at a stated time of the year (after Easter), in presence of all the teachers of the school, and their attainments must prove satisfactory in Bible and church history, the Lutheran catechism, reading, writing, German grammar, especially the orthography of the language, the ground-rules of arithmetic (mental and written), geography and history, and natural history and philosophy, of the grade of the highest class of a burgher school. They must also be able to play, at sight, easy pieces of music upon the violin. The usual age of admission is eighteen, and the lowest at which they are admissible, seventeen. On entrance they are entitled to free lodging and instruction, and if their conduct and progress are satisfactory, in general, receive a yearly allowance of twenty-five dollars, which is equivalent, nearly, to the cost of their maintenance. Their clothing and school-books are provided by the pupils. The modes of preparation judged most appropriate by the authorities of the seminary are, the attendance on a burgher school, with private lessons from a competent teacher, or entrance into the preparatory establishment at Weissenfels. A gymnasium is considered by no means a proper place for the preparation of pupils, its courses, discipline, and mode of life having a different tendency from that required by the future teacher of a common school.

The admission of new pupils takes place with some ceremony, in presence of the teachers and pupils. The director gives a charge, in which he makes them acquainted with the rules of the school, chiefly those relating to moral conduct, to obedience to the authorities, punctuality, regular attendance at study, school, church, and, in general, on the appointed exercises, due exertion, neatness in their habits, and exactness in the payment of dues to the tradesmen with whom they may deal. They bind themselves to serve for three years after leaving the school, in whatever situation may be assigned them by the regency of Merseburg, or to pay the cost of their education and maintenance. During their stay at the seminary, they are exempted from military service, except for six weeks; in fact, this service usually takes place at leaving the school, and before entering upon their new career. The number of pupils, on the average, is sixty.

The courses of instruction are, morals and religion, German, arithmetic and geometry, cosmology, pedagogy, terraculture, hygiene, theory and practice of music, drawing, and writing. Cosmology is a comprehensive term for geography, an outline of history and biography, the elements of natural history and natural philosophy, all that relates to the world (earth) and its inhabitants. Pedagogy includes both the science and art of teaching. The courses just enumerated are divided among the masters, according to the supposed ability of each in the particular branches, the whole instruction being given by the four teachers. The director, as is customary in these schools, takes the religious instruction, and the science and art of teaching, as his especial province, and adds lectures on the theory of farming and gardening (terraculture), and of health.

The duration of the course of studies has been reduced from three years to two, on account, as is alleged, of the necessity for a more abundant supply of teachers. There are, probably, other reasons, such as the expense, and the fear of over-educating the pupils for their station, which have been influential in bringing about this reduction. There are two classes corresponding to the two years of study. The first year is devoted entirely to receiving instruction, and in the second, practice in teaching is combined with it. In the preparatory school there is likewise a course of two years, and the pupils are divided into two classes. This establishment is in a building near the seminary, which can accommodate forty pupils, and is under the special charge of one of the teachers.†

The outline of the studies in the two schools is as follows:

\* Rev. Dr. Harnisch.

† The directions issued by the provincial authorities are, that they shall have a strong chest and sound lungs, not to be too near-sighted, nor deaf, nor infirm. The physician's certificate must state whether they have had the measles, &c.

‡ The payments made by the pupils are, per annum, for instruction, nine dollars; for dinner, bread not included, thirteen dollars and fifty cents; lodging, three dollars, waiting and nursing in time of sickness, one dollar and seventy-five cents; use of library, fifty cents.

#### Religious Instruction.

##### PREPARATORY SCHOOL.

II Class. Bible stories, which the pupils must be able to narrate with propriety. Christian doctrine. Portions of Scripture committed to memory. Four hours weekly.

I Class. Reading the Bible, especially the historical parts. Krummacher's Bible Catechism. Christian doctrine. Parables of the New Testament. Seven hours.

In the lectures on Christian doctrine, which the two classes of the normal school attend together, the director gives a portion of Scripture to be committed to memory, explains and illustrates it, and interrogates the pupils, who take notes of the lecture, which they subsequently write out.

##### NORMAL SCHOOL.

II Class. Reading the Bible, particularly the historical parts; writing catechetical exercises, adapted to children. Two hours.

I Class. Continuation of the second class course. Two hours.

I and II Class. Christian doctrine, from Luther's Catechism. Three hours. History of the different dispensations. Two hours. A course of two years.

The course of church history is taught, also, by the mixed method of lecture and interrogation, to both classes united.

#### German Language.

##### PREPARATORY SCHOOL.

II Class. Exercises of speech in reading and delivery. Descriptions and essays on subjects drawn from common life. Grammar. Writing as an exercise in calligraphy and orthography. Nine hours.

I Class. Reading, with explanations. Composition. Grammar revised. Writing, as in the second class. Nine hours.

##### NORMAL SCHOOL.

II Class. Reading, with explanations. Writing, as an exercise of calligraphy and orthography. Exercises of style. A composition once every month. Essays from history, geography, or natural history. Grammar revised. Eight hours.

I Class. Poetry, with readings. Calligraphy. Exercises of style. Grammar revised. National literature. Seven hours.

The first and second classes are united for a portion of instruction in this department, intended to rid them of provincialisms of speech, and to improve their handwriting. Three hours.

#### Mathematics.

##### PREPARATORY SCHOOL.

II Class. Arithmetic, including the Rule of Three. Three hours.

I Class. Arithmetic, revised and extended. Use of compass and ruler. Four hours.

##### NORMAL SCHOOL.

II Class. Geometry, commenced. Four hours.

I Class. Revision of previous studies. Geometry, continued. Two hours.

The method of teaching mathematics is that of Pestalozzi; and director Harnisch has himself prepared a work on geometry for his pupils. The applications are made to follow the principles closely. As in the other courses, the greater part of the learning is done in the school-room, the books being used rather for reference than for preparation. In the lessons which I attended in this department, much skill was displayed by the instructors, and a very considerable degree of intelligence by the pupils. Considering it as the means of developing the reasoning powers, this method is very far superior to that in which the propositions are learned from books. To exemplify the method of Dr. Harnisch, I may state the following ease of a recitation in geometry by the second class. The equality of two triangles, when the two sides and the angle contained between them in one are equal respectively to the two sides and the contained angle in the other, had been shown by the teacher, and the demonstration repeated by the pupils, who were interrogated closely upon it. An application of the theorem was at once required, to determining the distance between two points, one of which is inaccessible. Two of the class found the solution immediately, and all were able to take part in the subsequent discussion of the problem.

#### Cosmology, (Weltkunde.)

##### PREPARATORY SCHOOL.

II Class. Elements of botany and zoology. Excursions for practical instruction in the former. Four hours.

I Class. Geography and the drawing of maps. Elements of physics and technology. Biography. Three hours.

##### NORMAL SCHOOL.

II Class. Revision of the above studies. Three hours.

I and II Classes united. General views of the earth and its productions and inhabitants. One hour weekly for one year. Gardening and hygiene (Gesundheitskunde.) Two hours weekly for two years.

The lectures in the normal school on these subjects are by the director. The means of illustration in physics are small, and the whole course is chiefly intended to show the future teachers how wide a range of knowledge may be opened to them by study. The natural history is illustrated for the most part by drawings. To render the



seminarists more useful in their situation of country school-masters, which a large proportion of the pupils become, they have lectures on the principles of agriculture and gardening, and also practical lessons from the gardener, who has charge of the grounds. The pupils work during the appropriate season every day in turn, under the direction of the gardener. Good manuals, conveying correct but elementary instruction on these matters, are much wanted. They should, perhaps, be prepared by a teacher, but by no means allowed to go into use without revision by persons specially acquainted with the different branches of science thus grouped together. This revision would insure the accuracy which, though difficult to attain, is so necessary: the more so in conveying such elements, as there is no collateral knowledge to correct or modify error as to fact or theory.

#### *Science and Art of Teaching.*

##### PREPARATORY SCHOOL.

The first class receive simple directions for keeping school, and lessons on teaching. They attend in turn the classes of the seminary schools two hours weekly, but take no part in teaching.

##### NORMAL SCHOOL.

II Class. Lessons on teaching, three hours. Visits to the schools, three hours.

I Class. Lessons on the art of teaching, three hours. Visits to the schools, five hours. Lessons on the instruction of the deaf and dumb, by the director of that department, one hour.

I and II Classes united. Science of teaching, two hours.

The director delivers the course on the science of teaching, which in these schools is considered of the highest importance, and also gives a portion of the lessons in the art of teaching to the first class.

The theoretical instruction in the science and art of teaching embraces two courses, each of a year, the first being devoted chiefly to education in general, the second, to instruction and the arrangements of the school.\* The director remarks of this course, that the pupils learn by it to say a good deal upon these subjects, and sometimes believe that they can easily execute what they can so readily describe, an opinion of which practice can alone show the error, and which it is essential should be removed. The general theory of education is founded upon the constitution of man, and under the head of instruction, the methods of teaching the various branches are described. The practice which must render this theory of real use is had in part in the schools. The pupils attend the free school, the burgher school, and the deaf and dumb school, at stated times. They go at first as listeners, next take part in the instruction, under direction of the assistant teachers, and lastly instruct the classes. In order that they may have models of teaching, not only in the assistants, but in the teachers of the seminary themselves, the latter give lessons occasionally in the different schools; thus the director teaches one hour per week in the seminary school, the second teacher two hours, and the third and fourth teachers four hours. The lower class attend the several classes of the burgher school, except the highest girls' class, remaining, in general, one-fifth of the time in each class except the lowest, where they remain double this time, and visiting each class twice at intervals. The upper class attend also the girls' class, the deaf and dumb school and the free school, remaining one-eighth of their time in each of the classes. Each member of the lower class keeps a journal of his visits to the schools, which is inspected by the second teacher. Each of the first class draws up a report of his occupation and observations in the schools, which is reviewed by the assistant teacher of the class to which it refers, and is then examined by the second teacher and by the director. The several assistant teachers make reports upon the qualifications of the seminarists who have given instruction in their classes. By these arrangements, a pupil who has the mental qualities essential to a teacher, cannot fail to become well versed in the practice of his profession. Habits of observation are inculcated, which must be of great service to him in his practice, enabling him to adapt himself to the circumstances in which he is placed, and to profit by the experience of every day.

To exemplify the principles and methods, a small number of the children from the seminary school are brought into the class room of the seminary, and are examined upon a given subject by some of the pupils. The class present and the director make their notes on these examinations, and the exercise terminates by an examination of the children by the director himself, as an exemplification of his views, and that they may not receive injury from being left in a half or ill-informed state on the subjects of the lesson. The children having retired, the different members of the class make their criticisms, which are accepted or shown to be erroneous by the director, a conference or discussion being kept up until the subject is exhausted. The character of each exercise is marked by the director, who is thus enabled to judge of the progress made by every member of the class, and to encourage or admonish privately, according to circumstances.

The lectures given by the head master of the school for the deaf and dumb are also accompanied by practice, a certain number of pupils being detained every day for that purpose. The basis of the method

\* A more common division of the course is into pedagogics, or the principles of education and instruction. Methodics, or the art of teaching the system or methods of education, to which a third division is sometimes added, called didactics, which relates to the subjects of education.

is the idea that it is possible to restore the deaf mute to society, by enabling him to understand spoken language from the motion of the lips, and to speak intelligibly by mechanical rules. It is hoped ultimately, by training every school-master in this method, that the mute may be instructed in schools with other children, and thus not be required to sunder ties of kindred during a long absence from home. The pupils of the deaf and dumb institution do not live in the establishment, but are boarded with tradesmen of the town of Weissenfels; the object is to induce the practice of the lessons out of school, the pupils being enjoined to avoid the use of signs. The first lesson is one in articulation. The principle of this instruction is now dominant in Germany, but up to this time the system has not been fairly tried by its results. The indomitable perseverance of the masters of the principal schools which I visited struck me with admiration, but I was not convinced that what they aimed at was practicable, as least to the extent which their principle asserts. The attempt deserves, however, the best encouragement.

#### *Drawing.*

##### PREPARATORY SCHOOL.

The two classes united for geometrical and perspective drawing.

##### NORMAL SCHOOL.

The same course continued.

#### *Music.*

##### PREPARATORY SCHOOL.

The two classes united for instruction in the elements of music. Choral singing. Instruction is given on the piano and organ to the pupils, divided into four sections. They are also taught the violin.

##### NORMAL SCHOOL.

The instruction, as just stated, is continued. Theory of music. Composition.

The violin is taught as the means of leading the exercises in singing in the elementary schools. The piano serves as an introduction to the organ, a knowledge of which is important to the Prussian school-master, as enabling him to act as organist in the church of the parish where his school may be situated. So high a value is placed upon an elementary knowledge in vocal music, that an ability to give instruction in it is indispensable to admission into the class of teachers. It is not, therefore, surprising that the pupils of the seminaries in general are proficient in music. I confess, however, that I was not prepared for the advance in the theory and practice to which many of the first class in this school had attained. In regard to the former, I was present at one of the exercises in composition, in which the teacher read, and the pupils transcribed three stanzas of poetry. This done, they were required to compose an air adapted to the words. In less than ten minutes a fifth of the class were ready. The teacher took his station at a black-board, on which the ledger lines were drawn, and one of the pupils whom he designated began to sing the words to the air which he had composed, the teacher writing the music meanwhile. This air was pronounced not to be original. A second was tried, which the teacher thought an imitation. A third and fourth he accepted, and wrote upon the board. They were criticised by both the class and the teacher, set to parts by the former, and sung. The two classes were in the next hour united for choral singing, in which many are proficient, the teacher leading at the organ.

The course of drawing is limited in extent, the object being chiefly to give opportunities to those pupils who have a taste for drawing to cultivate it. In fact, as it tends to divert attention from more important matters, which the short time spent at the seminary requires entire devotion to, it is not much encouraged.

The four teachers attached to the normal school have charge of specific departments of labor, as well as of particular implements of instruction. The director has the general superintendence of the instruction, discipline, household arrangements, and finance, and is librarian of their small collection. The second teacher has charge of one of the schools, of the musical exercises, books, and instruments; a third, of the students when assembled, especially in the school-house, and of the drawings, copy-slips for writing, and maps. The fourth superintends the pupils while in the dwelling-house, and also at meals. These teachers are aided in their duties by younger ones attached to the seminary, under the title of assistant teachers. The dining-hall, or the recitation-rooms, serve as places of study, according as the pupils are in the school-house or in the dwelling, the two buildings being separated by a portion of the grounds. The chapel, which is a neat room connected with the school-house, serves for the music-room, as well as for the religious exercises.

The order of the day in the normal school will serve to show how constantly these young men are employed in preparing for the duties of their arduous profession, and yet they appeared to me always cheerful in the performance of their self-imposed task. In winter, the pupils rise at five, and, after washing and dressing, have a brief religious exercise, and study until breakfast, which is at seven o'clock. Until eight there is recreation. From eight until twelve they are in school, engaged in recitation, listening to lectures, or

teaching. From twelve until one they have dinner and recreation. From one until five they are again in school. From five until seven or half past seven, in summer, there is recreation, or excursions are made with a teacher, and then study until nine. In winter there is recreation until six, from six to eight study, and from eight to nine musical exercises, one-third playing on the violin, another on the organ or piano, and another singing. At half past nine in winter, and ten in summer, the pupils retire. There are prayers morning and evening. On Wednesday and Saturday they have half of the day for recreation, and in summer make excursions to collect plants or minerals. A place for gymnastic exercises is provided, and used during the hours of recreation.

The moral education of these young men is closely attended to. They not only receive direct religious instruction, but the best examples are constantly before them. The chief reward for proficiency or good conduct is the approbation of the teachers, the principal punishment, short of dismissal, their disapprobation. The director has, also, the influence resulting from his power to give pecuniary assistance to the meritorious, while in the school, and to secure them good places at leaving it. The greatest harmony reigns throughout the establishment. On the evenings of Saturday, there are frequently parties in turn among the teachers, to which the pupils are invited, and where there is usually music. Those who have acquaintances in the town, are encouraged to visit their families, but the places of visiting must be known to the director.

Physical education is most essential where young men, at the time of life of these seminarians, are sedulously engaged in intellectual pursuits, and necessarily so much confined to the house. They, therefore, have gymnastic exercises or work in the fields or garden, or walk during those periods of the day and parts of the week allowed for recreation. Care is taken that, unless indisposed, they do not remain in the house at those times, when the weather permits them to be in the open air. There is an infirmary for the sick, in which one of the pupils in turn acts as nurse, and a physician is called in when necessary.

The school year is divided into three terms, the first from the beginning of June until August, the second from September to Christmas, and the third from January to May. The holidays are four weeks in August, two at Christmas, and one at Easter. During the first two named, the pupils go home to their friends. Christmas is celebrated in the school, and at the close of the first and second terms there are private examinations, the results of which are communicated to the students. At the close of the third term, the examination for passing from the second to the first class is held, and none are promoted from one class to another unless fully proficient in the courses of the past year. At the end of the second year, they are examined upon the whole range of study, and in composition and orthography. Those who pass satisfactorily receive a diploma, and find no difficulty in obtaining employment as teachers. Some of the most promising are frequently retained in the schools of the institution as assistant teachers, under the appointment of the director. The additional experience thus gained, is of importance in a professional, and ultimately in a pecuniary point of view.

Every pupil, on leaving the school with a diploma, makes a drawing, or copies a piece of music or of writing, which he leaves as a memento.

The pupils of all the normal schools are bound by law to serve in such situations as may be assigned to them for three years, or to pay certain sums in lieu of this service.

The domestic economy is superintended by the director, who has a house-keeper under his orders. Dinner is provided at a common table, but each person furnishes himself with breakfast and supper. The diet is of the plainest kind, but there is meat for dinner every day in the week except two.\* The police of the establishment is attended to by the pupils themselves. The members of the second class, in turn, have charge of the police of the school-rooms, dormitories, of the lamps, of ringing the bell, &c., or these duties are executed by those who have fallen under censure. The first class superintend the fires and out of door work, have charge of the cellar, store-room, lavatory, &c. There are three dormitories, under the general superintendence of one of the teachers, aided by pupils selected for the purpose. The bed and bedding are furnished by the pupils at entrance. The lodging of these youths is, like their fare and clothing, of the plainest sort; a plainness which puts in strong relief the richness of the moral and intellectual culture afforded by the institution.

\* The dinner costs seven dollars and fifty cents per annum, or about two cents and a half per day. If a pupil receives no stipend from the institution, he is charged but half this sum.

EXTRACT FROM A REPORT OF THE HON. THOMAS WYSE, ON THE  
STATE OF PRUSSIAN EDUCATION IN 1838.

I spent a considerable portion of last autumn in the Rhenish provinces, of all others the most likely to put to proof the efficiency of the system. They are new acquisitions, of different religious communions, not very well disposed to their new masters, engaged at this moment, and for some time back, in a religious controversy; and, comparatively speaking, as yet undisciplined to the Prussian code (principle and practice included) of instruction. I had many opportunities of enquiry into both; not only into the system, but into its effects, physical, intellectual, moral and religious, not upon one, but upon all classes of the community. The result, I am bound to say, was satisfactory.

There is much less centralism in the system than is usually imagined. On the contrary, we find a minute division and subdivision of duties and powers, and due regard to all interests, local as well as general. In the first instance there is a long series of authorities between the State and the school:—1. The Council of Public Instruction, a department of the ministry, headed by a responsible officer of the Crown, representing directly the authority of the State. 2. The Provincial Consistory, an intermediate authority, representing the Church. 3. The School Commissioners, or Council of the Circle, a large local authority. 4. The School Commissioners, or Council of the Commune, or a small local authority, both representing, in greater or lesser mass, the people.\* II. The same board does not execute all the functions of the department, nor the same section all the functions allotted to each board. The religious functions are discharged by the ecclesiastical section; the lay by the lay; on matters strictly professional, professional men are called into consultation; on affairs of teaching, teachers; on matters financial, official financiers. III. Each class shares in the powers and duties, lay and ecclesiastical, high and low, public and private. Each sect, Catholic and Protestant, wherever the population is mixed members of the administrative department, &c., in the province and circle, substantial householders in the commune form the chief materials of the respective councils and committees; the pastors, also, of the respective communions are allowed their participation in the management, both general and local, and are specially called on to visit the schools, being, however, required to prepare themselves previously for the duty, by an appropriate course of study and practice in the Teachers' Seminary. IV. Books used in the course of instruction, are left in a great degree to the choice of the local bodies. Those destined for religious instruction must have the sanction of the bishop or pastor of the communion by whom they are to be used. V. The religious instructor must be examined by the commissioners of the local body, and approved of by the local body and local pastor. VI. The examiners of candidates for the situation of teacher are a distinct body from the ministerial, provincial, circle, or communal boards. VII. United education is not a matter of compulsion: it is left at the discretion of the commune. When adopted, it is required that religious instruction should be given to each sect in the school-house, but apart. VIII. Due provision is made for religious and moral instruction, (Religion and Sittenlehre) general and special, in every school, without exception. IX. Education in the Government or Communal school is not enforced; the selection of the school is left to the parents or guardians of the child. X. No perfectly uniform system is yet established; modifications are permitted according to circumstances.

There are few children now in Prussia not in a course of instruction. This will appear from the last official report, which goes up to 1838. Taking the proportion of the number of children of the age fixed by law for attending school—i. e. from 6 to 14—as one sixth of the whole population, we shall find that nearly the whole of that number are actually in attendance. In the public elementary schools in Prussia, the number of children under education at the beginning of 1838, were 2,171,745. The population of the monarchy in the same year, exclusive of Neufchatel, was 14,098,125; so that in the Prussian states, between the sixth and seventh child is actually at school.

At the same time it is obvious that there are considerable differences at this moment observable between the different provinces. In those of Saxony, Pomerania, &c. education is universal. This is attributable to the exertions of the local authorities. The respective governments have taken great pains fully to remedy every defect. The clergy will not admit children to the instructions preparatory to confirmation until they can read and write. In the majority of the

\* In the towns, especially, the principle that the people should have the power of managing their own local concerns, through bodies elected by themselves, is not only admitted, but acted on, to a much greater extent in those countries than even in many particulars, in England and in Scotland. Amongst matters of local interest, none rank higher in the estimate of all branches of the German nation, whatever may be their several or political constitutions, than institutions which have reference to education, or, more generally speaking, to intellectual and moral progress. Hence it is that, as a matter of course, the management of schools in each town forms, either directly or through committees, one of the principal objects of the municipal body. These bodies, as already mentioned, are elected by the people. Where none exist, the people choose respectable householders amongst their number, to represent them in the school committees. To this local interference and control directly derived from a free municipal organization, the Government is so far from being opposed, that in a late official report it is admitted that to this cause, and to the appointment of intelligent and active school committees, by the several municipalities, much of the present advanced state of elementary education is to be ascribed.



districts the deans and superintendents have been most assiduous and exemplary in visiting the schools; the same praise may be bestowed on the inspectors, to whom are confided in each district a certain number of the country schools. The periodical reports are exact and minute; the regulations respecting education punctually enforced; and, whenever necessary, strengthened by new instructions from the government. Much aid has also been derived in towns, according to the official report, from the salutary introduction of the municipal law, old and revised; the committees chosen by the town councils for the management of the town schools, have been of essential service. Even in the agricultural districts similar zeal for the improvement of education is every day becoming more conspicuous. Nor are many of the regulations lately introduced in other departments without their salutary influence. The universally required military service in particular has had the most beneficial results. Every soldier must now be instructed. If, by any chance, he cannot read or write, both are immediately to be taught him whilst serving in the capacity of a soldier.

In some of the provinces, indications of neglect are here and there perceptible.

How are the expenses of these schools defrayed, and what is the proportion actually paid by the State? Taking the number of Elementary schools at 22,910, and supposing each school, according to official calculation, to require for payment of teachers, cost of school, outfit, apparatus, &c., a sum not exceeding 150 thalers yearly, the whole charge of all these schools would amount to an annual sum of 3,436,500 thalers—about \$2,410,000. Of this less than \$100,000 is appropriated by the State.

This is in full accord with the spirit of the law, and the principle at all times prevalent, and in practical operation in Prussia, that the establishment and support of elementary schools is a matter especially and almost exclusively belonging to the commune. The poorer communes undoubtedly labor under some difficulties, and it is important they should be provided with funds for the building, at least, of the school. Such funds, accordingly, are furnished in various ways, either from the special school fund of the province, or from endowments by proprietors, or the subscriptions of benevolent individuals, or, finally, from grants from the State. The King, too, on all such occasions, has uniformly shown every readiness to order extraordinary assistance from the treasury.

But, though the State does not consider itself bound, except on such special and extraordinary occasions, to assist in the support of elementary schools; yet, in reference, generally to elementary education, it deems it a matter of the deepest obligation to maintain from the public funds seminaries for the education of competent teachers.

The number of seminaries, or teachers' schools, in the Prussian states at the beginning of the year 1838 were forty-five; the number of pupils, or seminarists, 2,583. The number of teachers required for the service of all classes of schools were as follows:—

<b>I. Public Elementary Schools.</b>	
Teachers, . . . . .	23,858
Assistants, . . . . .	2,468
<b>II. Middle Schools for Boys.*</b>	
Teachers, . . . . .	748
Assistants, . . . . .	191
<b>III. Schools for Girls, not comprehended under Elementary Schools.</b>	
Teachers, . . . . .	479
Assistants, . . . . .	371
<b>IV. Higher Burger Schools.</b>	
Teachers, . . . . .	367
Assistants, . . . . .	200
Total, . . . . .	28,682

Calculating the period of the service of a teacher on an average at about thirty years, (a calculation justified by experience both in reference to the profession and the duration of human life,) there will be annually from 900 to 1000 teachers to replace in the four classes of schools just enumerated. The third of the seminarists under actual education generally leave their seminaries, after a three years' course, each year. This would give about 861.

The larger of these institutions are supported at the expense of the State. Many possess buildings and funds from bequests and endowments.

Such are the general provisions throughout the monarchy for elementary instruction; but, besides such as are common to all, there are others of a more special nature connected with elementary education. Some short notice of these latter may not prove uninteresting.

**Schools for the Deaf and Dumb.**—The deaf and dumb in the Prussian states amounted, at the beginning of 1838, to 11,104. Taking the number of children from six to fourteen, as the proportion fit to go to school, we shall have 2,221 as the number of deaf and dumb requiring instruction. They are in reality, however, more numerous; if we extend the period in which they continue to attend school to the completion of the age of fifteen, they may be reckoned at 3,156. Deduc-

tion must on the other side be made of all such as, in consequence of extreme corporeal defect, are not susceptible of mental culture. There are establishments for the education of the deaf and dumb, erected for the greater part at the personal expense of the present king, at Berlin, Königsberg, Breslau, Münster, and Cologne. As it is impossible in these establishments to educate all the deaf and dumb of the kingdom, it has been thought advisable to prepare as large a number as possible of teachers for the duty; and, with this object, at the cost of the province, there are attached two seminaries for teachers' schools in which deaf and dumb children who may have been given in charge to private families may be instructed; and, in which the pupils in the teachers' seminaries may have an opportunity of practically learning the art of teaching this afflicted class of the community. This suggestion has been already adopted with the happiest results in the provinces of Saxony, Westphalia, Posen, Prussia, and it is hoped, will soon be imitated with equal zeal by the other provinces.

**Schools for the Blind.**—The number of blind in the Prussian states amounted, in the beginning of 1838, to 10,224. As many have been so visited at later periods of life, we should not be justified, as in the case of the deaf and dumb, in taking the fifth of 10,224, or 2,045, as the number of blind between six and fourteen capable of instruction. The true number is considerably smaller. Of the total 10,224 there are not more than 915 blind under fifteen. There are two large schools for the blind in Prussia, the one at Berlin, the other at Breslau. The first will receive in a short time, from the bequest of the Rottenburg family, a very considerable accession to its present property.

**Orphan Houses.**—more properly belonging to the class of charitable institutions,—such as the great Military Orphan House of Potsdam. They are to be found in all the larger towns, for the most part erected and maintained at the cost of private individuals or corporate bodies. They are noticed here for the admirable care taken in all of them of elementary education.

**Infant Schools.**—under various designations, and of various degrees, principally intended for the reception of very young children, who otherwise would be left to wander about the house, or be given in care to other children, if left at home during the absence of their parents; or preparatory schools for children, before they proceed to the elementary schools. They owe their establishment, in great measure, to private benevolence, and have not as yet become very general. There are already, however, twenty-one at Berlin, educating 1,400 children.

**Reform Schools.**—more properly *Rescue Schools*,—for unprotected or convict children. This is a most important branch of elementary education, and many of the most eminent educationists in Prussia, Professor Julius, for instance, attribute to their establishment and extension, the far more salutary influence exerted by elementary education in that country than in so many others. The object, and it may be added, result of these institutions, may be collected from the following observations of the official paper:—"The painful experience that crime, especially thieving, so often practised by children,—the farther experience, that the loss of parental protection, or neglect in attending school, often leads to these mal-practices in early life,—the conviction that the young criminal may be restored to society, corrected, provided that imprisonment (which, however, but too often draws the offender, by communication with adult criminals, still deeper into crime) be followed by a good course of education, combined with continued labor, under a rigorous restraint, have suggested to private benevolence the establishment of these institutions, now to be found, great and small, in many parts of the Prussian monarchy. And though, from a former very ample report, it would appear that the number of young criminals in Prussia is by no means so great (not amounting to 1,5346 of the entire population, or, in other words, to only one juvenile offender in 2,484, from the age of ten to sixteen) still these institutions are of the highest benefit; and, from their efforts to bring back the lost sheep to the right fold, are deserving of the greatest gratitude of the country."

There are numerous other institutions, such as "Schools of Industry," "Horticultural Schools," &c., which might be classed in some respects under elementary education.

To ascertain the actual working of the system both in reference to elementary and teachers' schools, I visited the more remarkable of each in the town, (Bonn) and neighborhood. Bonn is a small town of not more than 10,000 inhabitants, but the seat of the second university of the monarchy, educating 700 or 800 students, under the instruction of seventy professors. It is really the intellectual capital of the Rhenish province. This province is divided into five circles. In each of these circles a number of inspectors, adequate to the wants of the circle are appointed, each of whom has under his care from fifteen to twenty schools, but not unfrequently double the number, and sometimes even more. The salary of school-inspector is not fixed by any certain rule. He is generally a clergyman of known experience in matters of education. He is required to visit annually, in company with the local school committee, every school under his jurisdiction; besides this more minute examination, he is every month obliged to hold a conference with the entire body of teachers in the schools of his district. On these occasions, whatever relates to the profession, or affects the interests of the several schools, is brought forward and freely discussed. These conferences have been found much more conducive to the



progress of schools than formal official reports. The excellences or defects of particular methods are practically exhibited; the teacher has, by communication and comparison, an ample opportunity of correcting errors, or adopting improvements, from the experience of his colleague. Reports, on the contrary, usually run into generalities, suggest views merely theoretical, and fall at times into obscurity and trifling. The expense of inspectors and teachers on such occasions are defrayed by the Government on a reasonable scale.

#### PUBLIC SCHOOLS OF BONN.

The "Stadt Schule," or town school, of Bonn, gives a tolerably favorable idea of a class of schools common to all the considerable towns in Prussia. It is the great public school of the place, supported by the municipality, and frequented by the children of various ranks. It is divided into a male and female school, and each school is again subdivided into six classes. These classes are taught in separate rooms, communicating with each other,—the girls above, and the boys below. The course proceeds from the simplest elements of reading, writing, and arithmetic, to the rudiments of history, geography, natural history, together with singing and drawing, so as to prepare them sufficiently, should they wish on leaving it, for admission into the Learned school, or the Sext class of the gymnasium. The *Facher* system is adopted. Each master chooses some particular branch or branches of the course (many being often united, such as natural history, &c. &c.), and teaches them to the several classes in rotation. There are advantages and disadvantages in this arrangement; the former, however, seem to predominate. I was conducted first to the boys' school; the first class-room I entered was crowded. The boys were, as in most of our schools, seated at their desks in parallel lines across the room, ranged according to proficiency. The teacher was young, both in years and experience; he had abundance of activity and earnestness, though not much discretion. By too much zeal, he often failed in preserving quiet or attention. During the short time I was present, two or three were consigned for disturbance to the corner. It must not, however, be imagined that there was any thing like the tumult of our English schools; the comparison must be confined to Germany. One cause of this general tranquillity may very probably be the national phlegm; but a more immediate and obvious one is the mode of teaching. Mutual instruction is banished; the classes are small and separate; the teacher instructs, *viva voce*, adopting the simultaneous and catechetical system, and sometimes (though not in as great a degree as in Scotland) the elliptical. Instead of confining himself to the desk or pulpit, he walks up and down at short intervals to every part of the school. Much, too, must be attributed to the skill of the teachers themselves, to the interest they throw into their instruction, to the just sense they have of the peculiarities of the youthful mind, and to the spirit and variety arising from change of class and teacher. The subject of the lesson was grammar; the questions were pressed with rapidity, and generally answered with ease. In some cases they appeared to be somewhat too refined for the pupils, and bordered a little on the pedantic and philological. This, however, must be taken with qualifications. The attention which the Germans universally pay to their language in the course of elementary instruction, may appear to us excessive and minute; but we must remember what that language is, and farther, the impression so general amongst German educationists, that the reasoning powers can never be so well developed as by the thorough study of language, and that no language is better fitted for such logical discipline than their own. In the next class room we found the pupils engaged with arithmetic, both mental and written. They showed more accuracy than quickness—pronunciation and manner were somewhat sluggish; but there was no guess-work—no error. In a third room the teacher was giving his lesson on natural history. The school had not been many days assembled, and he had one of the youngest classes under tuition. We found him in the elements. By frequent and varied questions on the same points, returning to the same classifications in different shapes, and drawing out of the child, not merely facts which he had learned, but reflections which these facts suggested, he worked the subject of his hour thoroughly into the minds of his young auditors, and they must have left the room masters, not merely of the materials as far as they had been furnished, but well exercised in the method of acquiring, without his assistance, a vast deal more. From the boys' school we proceeded to the girls'. I heard with great pleasure a child of eight years old go through the several questions applicable to household purposes, first orally, and then in writing on the black-board. There was no attempt at display or smartness; all was calm clear, and correct. In the adjoining class we found the mistress nearly at the close of her reading lesson. I was permitted to take up the book, and to select any subject I thought proper. I opened at a beautiful moral tale called *The Flowers*. The reading was ex-

cellent; great precision, accurate emphasis, great purity of enunciation, great delicacy, great sweetness of tone. I observed to the mistress, on closing the book, that it was hardly necessary to ask the pupil any questions, in order to ascertain how far the subject just read had been comprehended: the just application of emphasis and accent I considered evidence enough. She was anxious, however, to give some further proof, and immediately required the child to narrate the whole of the tale in different language, which was accomplished with much readiness and skill. Industrial occupations, as far as the girls were concerned, were attended to as much as intellectual. Sewing, knitting, and other female work, were taught in an adjoining apartment.

The "Poor School" (*Armen Schule*) is superior to the *Stadt Schule*. The building is new, extensive, lofty, admirably distributed and in the best possible situation, on the verge of the town, in the handsome new street, the *Friederichstrasse*. It was established, and continues to be supported, by the joint contributions of the municipality and of benevolent individuals. A certain number of the children are clothed. On entering the gate, we found on our left (detached) the infant, or rather little children's school; and in the midst of the court or garden the school-buildings, the ground floor devoted to the boys, the first floor to the girls. The religious teacher was occupied with the children of the infant school when we entered. He was a young clergyman, kind in his manner, but very earnest and impressive. He was teaching a portion of the catechism; the children answered the questions in the order asked, and then gave simple but precise explanations of each. This was followed by brief instructions and applications to practical purposes on the part of the clergyman. In the boys' school, classed and divided in the same manner as the *Stadt Schule*, we found one of the classes engaged in geography and history. The teacher examined in turn several boys up and down. The Rhenish province was the subject chosen in geography; Prussia generally in history. The pupils answered with ease and discrimination. After giving an outline of the kingdom at large, they went into the geography of the selected province; first describing it physically, then politically, finally statistically. The great natural features, the mountains and valleys, the course of the Rhine, the various streams flowing into it, and the several points at which they join, were all faithfully delineated; the political divisions at different periods were then marked out; and, at the close of the examination, a rapid sketch was given of the produce, manufactures, exports, and imports, population, &c. of each province, district, and town. When any of these particulars was demanded in another shape,—for instance the site of a particular mineral production,—the answer was equally prompt and accurate. After each answer, the teacher pointed out the places mentioned on a large map at the end of the room. The examination in history was equally minute. The several great epochs of the history of Prussia, from the time of Charlemagne to the present day; the gradual formation of the Margrave of Brandenburg; the erection of that and other territories into a kingdom; the important reign of Frederic the Second; the conquest of Napoleon; the successful war of liberation; and the present position and organization of the monarchy; were all detailed by a number of different boys in great variety of language and manner, some adopting the dramatic, others the narrative, but all with fidelity, and perfect command of phraseology and subject. I did not perceive any exaggerated religious or political opinions in the whole of this, nor any thing in phrase or thought, which might not have, with some little abatement for a natural preference for the virtues and glories of the father-land, been heard in the school of our own free England. I wished to see the text-book from which these lessons had been taught: the teacher informed me there was none. He gave his lessons *viva voce*; and this accounted for the diversity, and perhaps spirit just noticed. In the girls' school, the first class we visited were occupied busily with their slates. They had nearly finished a composition: the subject was a short moral tale. In looking over two or three, the same diversity, both in thought and expression, and even in arrangement of subject, as what had just been observed in the boys' school, was perceptible. The mistress had given the subject *viva voce*. When finished, a short interval was allowed to elapse before the pupils were required to give an account of it on their slates. This was quite different from the old dictation system. It called out in every way the powers of the mind, and really deserved its German designation, "Thought exercise" (*Denkübung*.) It was followed by reading:—the same excellences already observed in the *Stadt Schule* attracted our attention. The book used was a collection of instructions, or practical applications of the words of our Redeemer to the duties and trials of every-day life, in reference especially to the position of the children of the poor. The chapter read was in illustration of the words, "Suffer little children to come unto me," parts of it were written with great simplicity and beauty. The next class was occupied with sewing, &c. Large tables, at which were seated about twenty girls, stretched across the room: each had her basket and music before her. The mistress walked

up and down between the tables, ready to afford instruction or assistance when desired. The girls were neatly but simply dressed, their hair arranged in the best German fashion, and exhibiting every indication of cleanliness, cheerfulness, and good order. We inquired from the teacher if they were allowed to converse during this lesson, we were answered in the affirmative, but assured that they generally preferred singing. On professing a wish to hear them, one of the elder girls began at once a religious hymn, "O thou Inconceivable!" and was soon followed by a second, third, fourth, &c. in parts. To this succeeded a more joyous air, in which all joined. The ease and modesty, as much removed from all forwardness on one side as awkwardness on the other—the propriety with which the whole was executed—spoke highly in commendation of the influence and example of their teachers. In a room nearly adjoining, a ruder description of work was taught; instruction also in domestic economies, in which the Germans of all classes excel, was not forgotten. In the boys' school we were shown their writing and drawing books. The writing was excellent. Nor was this a holiday exhibition; the slates, especially in the girls' school, showed great attention and facility. The drawing was principally stereometrical, at least in the lower classes. The higher had advanced to the delineation of flowers, animals, &c. as well as of articles of furniture and other similar objects, and the more advanced pupils had added shaded to outline. It was stiff, and hard, and somewhat formal; but like the generality of German art, careful and exact, and evincing considerable practice in the close observation and delineation of forms, &c. Both singing and drawing are considered not so much as arts, as instruments of development, in a physical, intellectual, and moral sense. Putting aside all consideration of their ulterior use, there is little doubt that they add materially to the facility and perfection with which the elements of all instruction are taught in Germany. Hence the truth and delicacy of their reading, and the correctness, and often beauty of their writing. There were 600 children in the school; but the greatest order, regularity and quiet prevailed in every part—not the result of fear, but of early habit, and the kindly influence of their teachers. Greater attention had been paid to their moral training than is, I believe, usual in ordinary day schools. The teachers attend and watch them during their hours of play in the grounds near, as well as during their hours of class and study. The three hours of religious instruction are strictly adhered to, even in the instance of the infant schools; and instruction in morals accompany instruction in the articles of religious faith. Throughout, great regard has been shown to local arrangements; the galleries, class-rooms, and teachers' rooms are all spacious and lofty, with high windows, well ventilated, and well warmed. Some of the apartments, such as the girls' class-rooms, we found ornamented with good engravings, religious and historical, well glazed and well framed. So far from thinking that these accessories are immaterial, they seem to hold that nothing is to be despised which can give the pupil moral and mental pleasure, inspire pure taste, and assist in the development and refinement of the spiritual being, and uphold its mastery over the corporeal. Bodily punishment, it may be imagined, to enforce all this, was extremely rare. The masters, and especially the mistresses, rely, and with reason, on the power of good temper and good example.

There are several other schools at Bonn, public and private, all more or less exhibiting the chief features noticed in the preceding.

#### EDUCATION OF TEACHERS IN THE RHINE PROVINCE.

There are two seminaries for teachers, for the supply of Protestant, and two for that of Catholic schools: the Protestant, at Neuwied and Meurs, both small, educating each from thirty to thirty-six pupils; the Catholic at Brühl, near Cologne, educating about one hundred, and the one just commenced at Trèves.

The admission to the seminary takes place on the decision of the government, founded on a previous examination. The examination is conducted at the seat of the government of the circle, under the guidance of the school commission or board of the circle, aided by certain experienced teachers, who are called in for the occasion. The minutes of these proceedings are sent to the school commission or board of the province, who on the proposition of the examiners, usually grant the desired admission. The subjects proposed for examination are as follows:—

1. History of the Bible and Catechism.
2. Arithmetic, Four Rules, Fractions, Rule of Three.
3. Mother Tongue; simpler rules of Orthography, Composition.
4. Music; Piano-forte, and some acquaintance also with the Violin. This is not indispensable; evidence of a disposition to music is considered sufficient.
5. Singing, so that a simple church melody can be sung by note. This is not always insisted on; it is sufficient to give proof of a good voice.

The candidate is required to be eighteen years of age (formerly they were admitted at sixteen,) and of good frame, healthy consti-

tution, and unimpeachable character. No precise period is fixed for the departure of the students; those who are beyond their thirtieth year are allowed to pass; not, however, without great precaution.

The objects held in view, and inculcated throughout the whole of the course, by the director and teachers of the seminary are,

1. Accurate training.
2. The introduction to a proper method in the teaching and managing of children.
3. The acquisition and strengthening of a pious and virtuous disposition.

The subjects of instruction, in order to attain these ends, are,

1. Religion,—sufficiently extensive information to enable the pupils to give a just account of the nature and best mode of religious instruction, besides the principles and practice of religion.
2. German Language,—comprising accurate exposition of the meaning of words and phrases, correct orthography, facility in composition, fair hand. Some knowledge also of the nature of style, distinguishing poetical from prose, is required.
3. Arithmetic,—exercises in practical accounts; geometry, theoretical and practical, &c.
4. Geography.—Elements of History.
5. "Pädagogik" and "Didaktik," or the principles and practice of teaching.
6. Plain and Ornamental Writing.—Drawing.
7. Singing.—Music.
8. Introduction to the culture of fruit-trees.

Of these, religion, or religious instruction, arithmetic, writing, and singing are considered indispensable, the others, though important of minor necessity. The hours of study are so divided, that the pupils have daily from three to four hours in the morning, and three in the afternoon. The director has from sixteen to eighteen hours of teaching, the other masters from twenty-four to twenty-six, in the course of the week. The necessities of the elementary schools of the province, and the limited pecuniary means of the majority of the seminarists, render it necessary to restrict the course for the present to two years. The seminarists are daily examined in the art of teaching in an elementary school connected with the seminary, but under the management of its own teacher.

Brühl has sent out from 1828 to 1834, the following number of qualified teachers each year:—

In 1828, 43; 1829, 37; 1830, 31; 1831, 42; 1832, 44; 1833, 36; 1834, 52; Total 285.

In order to awaken amongst those who have not had the advantage of being educated in a seminary the sense and desire of educational improvement, they have appointed periodical examinations to be held, by means of which opportunity is furnished them to prove their capacity, and a prospect opened of promotion and profit in their professional career. At these examinations the following number of candidates appeared, and obtained the testimonial of competency from 1827 to 1834, each year:

In the year 1827, of 97 teachers, 45	
1828,—118	34
1829,—89	38
1830,—66	31
1831,—84	47
1832,—95	56
1833,—82	39
1834,—65	38

That is in eight years, of a total of 706 teachers, who presented themselves for examination, 328 only passed, and were declared competent.

Besides this expedient of periodical examination, which it is highly desirable should be rendered still more extended and permanent, the Government has endeavored to raise the position and character of the actual teacher, and to improve the methods in use in schools, by means of a methodical course of lectures. These are held annually in the seminary a month before the return of the seminarists from vacation, and intended for the teachers actually in employment. It is not proposed to render, by this arrangement, inferior teachers competent, but to improve those who are already sufficiently well prepared, and who have evinced special talent in any one branch of teaching. Each school inspector points out the best teachers in his district to the board of his circle, which, on its part, returns the list to the director of the seminary; the director calls together those who are so approved for a month.

This course is of a high character: it develops the principles of the art, and proposes various practical improvements in elementary instruction, drawn from experience and fact. Their introduction into practical teaching is rendered especially easy, from the circumstance of the lectures being addressed not to young pupils, but to men already of some standing in the profession, and who have already evinced, by their conduct, zeal, assiduity, and perseverance in discharging its important duties.



The Protestant Seminary at Neuwied is much more limited than that of Brühl, and on account of a growing neglect of the fundamental branches of reading, writing and arithmetic in the elementary schools, the course of instruction is more restricted and more practical. The inspection of this seminary is sound and vigilant, and the whole establishment exhibits the characteristics of a well-ordered family.

One of the difficulties which the present system for the education of teachers has to contend, is how to occupy the period elapsing between the pupils departure from the elementary school and his admission into the seminary, that is from the age of fourteen or fifteen to that of eighteen, or still later. If left to himself he is liable not only to forget much of what he had already learned, but is exposed to the danger, from distraction and other causes, of becoming useless in his intended profession. This is endeavored to be obviated by placing the young candidates under the direction of teachers in actual employment, in quality of assistant. Many teachers, without any special permission, are in the habit of employing several of these assistants, who pay them for being allowed thus to aid them in their school duties a larger or smaller yearly fee.

What is the real social result of all this? How has it effected the population—for good or ill? How is it likely to affect them in future? The narratives given by Pestalozzi, De Fellenberg, Oberlin, and the Père Girard, of the singular revolution, mental and moral, I may also add physical, effected by the application of their system of teaching on a hitherto ignorant and vicious population, though admitted to be isolated experiments, ought not the less to be considered evidences of the intrinsic force of the instrument itself, and of its power to produce similar results, wherever and whenever fairly tried, without reference to country or numbers,—that is, whenever applied with the same earnestness, honesty, and skill in other instances as in theirs. And of this portion of Prussia—of the Rhenish province—it may be surely averred, that it has now been for some time under the influence of this system, and that during that period, whether resulting from such influence or not, its progress in intelligence, industry, and morality, in the chief elements of virtue and happiness, has been steadily and strikingly progressive. In few parts of civilized Europe is there more marked exemption from all crimes of violence than in this happy land, not only from those graver delinquencies which stain the calendars of the more luxurious states of Europe, but even from those minor offences against the person, such as riot, assault, &c., from which none scarcely are wholly to be excepted. The safety of the public roads, contrasted with their notorious insecurity in many parts of England, is supported by unequivocal facts. The same abstinence from offences against property is conspicuous in towns. I have already had occasion to refer to the comparative rarity of thieving amongst the lower classes, especially to the diminution of the offence in that very class and age most subject to it in England, and most likely to be influenced by the want or supply, the badness or goodness, of education. There is not only little amount of crime, and few juvenile offenders, but this amount and number are progressively diminishing. Doubtless much of this most gratifying result may be ascribed to comfort and employment. But this again must be ascribed to some still higher cause. There is comfort, because there is frugality. "I Tedeschi sono ricchi," says Machiavelli, "perchè sanno vivere da poveri"—there is employment, because there is the desire and search and love of it. There is industry, incessant, universal, in every class, from high to low; because there are the early habits of useful occupation, and there are these habits, because there is sound and general education. In all those relations of life where truth, honor, confidence, and mutual kindness are most required, where fraud is most easy but most injurious,—where reciprocal good faith is of such import, but so easily disturbed,—in all pecuniary, especially in all commercial transactions, the "Deutsche Treue" is more than ever proverbial. A promise is a bond—a word an oath. The clergyman admitted that his flock had not become worse Christians for becoming more intelligent men; the officer, that his men had grown more obedient, as they had grown more instructed,—a word now led where a cane formerly was insufficient; the farmer, for the increased profits of his farm, as the manufacturer for those of his factory, thanked the school. Skill had increased, and conduct had improved with knowledge, profits with both. Even household management had reaped its advantage, when the first vanity and presumption arising out of the partial nature of instruction had worn off, when it had become general, sound, and appropriate,—the servant, especially the female servant, was not less faithful, and had become far more useful than before. As long, then, as such is the social state,—as long as those who are best entitled to speak are so found to speak,—one thing is certain, that Prussian education cannot have done much ill. If, on the other hand, it can be shown that to Prussian education any one of these benefits can legitimately be attributed, there is no one surely so rash or so unjust as not to admit that it has done some good.

GENERAL VIEW  
OF ELEMENTARY EDUCATION IN PRUSSIA IN 1838.

PROVINCES.	Population, including the military in 1837.	Number of children over 4 and under 16	Number of Public Primary Schools.	Number of scholars in Primary Schools.	Number of scholars in Burger and other public schools.	Number not at Public Schools.	Number of teachers in Elementary Schools.	Number of teachers in all the Public Schools.	Number, Teachers' Seminaries.	Number of pupils in ditto.
Prussia,	2,152,873	444,381	4,200	314,830	13,626	115,935	4,729	4,852	6	416
Posen,	11,062,706	243,078	1,635	145,314	4,636	93,128	2,005	1,845	3	315
Brandenburg,	1,741,411	338,361	2,885	254,251	30,773	53,337	3,862	4,438	3	256
Pomerania,	990,285	205,436	2,388	143,469	13,983	47,994	2,647	2,810	4	139
Silesia,	2,679,473	528,861	3,636	439,461	18,457	70,943	4,401	4,634	4	566
Saxony,	1,564,187	313,065	2,903	269,928	24,040	19,687	3,437	3,786	9	417
Westphalia,	1,326,467	270,570	1,849	221,568	4,636	44,386	2,133	2,014	4	272
Rhenish Province,	2,473,723	485,976	3,514	382,904	7,831	95,241	4,341	4,303	4	202
Total,	14,098,123	2,830,338	22,910	1,717,745	117,932	540,601	27,575	28,629	45	2,383

If to the above information from President Bache's Report, and the communication of the Hon. Thomas Wyse, the reader will recur to the abstract of Cousin's Report, in No. 10, to the views of Dr. Julius in No. 8, and of W. Wittich in No. 11 of the First volume of the Journal, he will have a more full account of the Prussian School System, than has ever been given in any one volume.

To appreciate the educational efforts of the government of Prussia, it should be remembered that the system of secondary and superior education, is quite as complete as that of primary instruction. The following account evinces the far-sighted policy of the government.

#### SCHOOLS OF ARTS OF PRUSSIA.

In Prussia, every trade in which a want of skill may jeopard human life, is regulated by law; and before its exercise can be commenced, a license is required, to obtain which an examination must be passed. This requisition of the law is considered to involve a reciprocal obligation on the part of the government to afford the opportunity of obtaining the necessary knowledge, and schools have accordingly been established for the purpose. Twenty of the regencies of the kingdom already have technical schools established in them, where instruction is, in general, given at the expense of the state, or province, or for a very trifling remuneration; and it is the intention that each regency shall have at least one such school within its limits. When there is a burgher school in the place intended as the locality for one of these technical schools, the two schools are connected as already described; at Potsdam, the special technical course alone being given in a separate department. In all cases the government supplies the apparatus for the courses of mechanics, physics, and chemistry; furnishes the requisite engravings for the courses of drawing; and supplies works for the library and for instruction. The courses are intended to reach the grade of the lower class of the Berlin Institute of Arts, to be subsequently described, a purpose which is actually accomplished in a part of the schools. Some of the communes have erected schools similar to these, at their own expense, or have aided in establishing or improving the provincial schools. The cost of these twenty schools, annually, is between seven and ten thousand dollars.

The most promising pupils from the provincial schools usually



find places at the central Institute at Berlin, which is in fact the university of arts.

There is a special school for ship-builders at Stettin, in Pomerania.

INSTITUTE OF ARTS OF BERLIN.

This institution is intended to impart the theoretical knowledge essential to improvement in the arts, and such practical knowledge as can be acquired to advantage in a school. It is supported by the government, and has also a legacy, to be expended in bursaries at the school, from Baron Von Seydlitz. The institution is under the charge of a director\*, who has the entire control of the funds, of the admissions and dismissals, and the superintendence of the instruction. The professors and pupils do not reside in the establishment, so that the superintendence is confined to study hours. There are assistant professors who prepare the lectures, and conduct a part of the exercises, in some cases reviewing the lessons of the professors with the pupils. Besides these officers there are others, who have charge of the admirable collections of the institution, and of the workshops, offices, &c. The number of professors is eight, and of repeaters, two. The discipline is of the most simple character, for no pupil is allowed to remain in connexion with the institution unless his conduct and progress are satisfactory. There is but one punishment recognized, namely, dismissal; and even a want of punctuality is visited thus severely.

In the spring of every year the regencies advertise that applications will be received for admission into the institute, and the testimonials of the candidates who present the best claims are forwarded to the director at Berlin, who decides finally upon the several nominations. The pupils from the provincial schools have, in general, the preference over other applicants. At the same time notice is given by the president of the Society for the Promotion of National Industry, in relation to the bursaries vacant upon the Seydlitz foundation. The qualifications essential to admission are—to read and write the German language with correctness and facility, and to be thoroughly acquainted with arithmetic in all its branches. The candidate must, besides, be at least seventeen years of age. Certain of the pupils, as will be hereafter more fully stated, require to have served an apprenticeship to a trade. The Seydlitz bursars must, in addition, show—1st. That their parents were not artisans,† relatives of the founder having the preference over other applicants. 2d. That they have been apprenticed to a trade, if they intend to follow one not taught in the institution. 3d. They must enter into an engagement that if they leave the mechanical career, they will pay back the amount of their bursaries. There are sixty or seventy gratuitous pupils in the school, of whom eighteen are upon the Seydlitz foundation. Forty are admitted annually, this number having been adopted because it is found that, in the course of the first month, about a fourth of the newly admitted pupils fall away from the institution. Each bursar receives two hundred and twenty-five dollars per annum for maintenance. The education is gratuitous. The regular pupils enter on the first of October, but the director is authorized to admit, at his pleasure, applicants who do not desire to become bursars, but who support themselves, receiving gratuitously, however, the instruction afforded by the institution.

The education of the pupils is either solely theoretical, or combines theory and practice, according to the calling which they intend to follow. The first division is composed of students, who receive theoretical instruction only, and who are preparing to become masons, carpenters, and joiners. They are supposed to have become acquainted with the practice of their trade before entering the institution, being required to have served, previously, a part of their apprenticeship. An excellent reason is assigned for this rule, namely, that on leaving the school such pupils are too old to begin their apprenticeship to these callings, and would, if they attempted to do so, find the first beginnings so irksome as to induce them to seek other employments, and thus their special education would be lost, and the object of the school defeated. The second division embraces both theoretical and practical instruction, and consists of three classes. First, the stone-cutters, engravers, lapidaries, glass-cutters, carvers in wood and ivory, and brass-founders. Second, dyers, and manufacturers of chemical products. Third. Machine-makers and mechanicians. The practical instruction is different for each of these three classes.

The general course of studies, last two years, and the pupils are divided into two corresponding classes. The first class is, besides, subdivided into two sections. The lower or second class is taught

\* The director, M. Beuth, is also president of the Royal Technical Commission of Prussia, and has the distribution of the funds for the encouragement of industry, amounting to about seventy five thousand dollars annually. M. Beuth is also a privy councillor, and is President of the Society for the Encouragement of National Industry in Prussia.

† The object of M. Von Seydlitz appears to have been to counteract, to the extent of his power, the tendency to the increase of the learned professions, at the expense of the mechanic arts, by an inducement to a course exactly contrary to the usual one.

first, mechanical drawing, subdivided into decorative drawing, including designs for architectural ornaments, utensils, vases, patterns for weaving, &c., and linear drawing, applied to civil works, to handicrafts, and to machines. Second, modelling in clay, plaster and wax. Third, practical arithmetic. Fourth, geometry. Fifth, natural philosophy. Sixth, chemistry. Seventh, technology, or a knowledge of the materials, processes and products of the arts. The studies of the lower section of the first class are general, while those of the first section turn more particularly upon the applications of science to the arts. In the lower section, the drawing, modelling, natural philosophy, and chemistry, of the first year, are continued; and, in addition, descriptive geometry, trigonometry, stereometry, mixed mathematics, mineralogy, and the art of construction are studied. In the upper or first section, perspective, stone-cutting, carpentry, and mechanics applied to the arts, are taught, and the making of plans and estimates for buildings, work-shops, manufactories, machines, &c. These courses are common to all pupils, whatever may be their future destination; but beside them, the machinists study, during the latter part of their stay at the institution, a continuation of the course of mechanics and mathematical analysis. The examples accompanying the instruction in regard to plans and estimates are adapted to the intended pursuits of the pupils.

The courses of practise are begun by the pupils already enumerated as taking part in them, at different periods of their stay in the institution. The future chemists and mechanics must have completed the whole range of studies above mentioned, as common to all the pupils, while the others begin their practice after having completed the first year's course. There are workshops for each class of pupils, where they are taught the practise of their proposed calling, under competent workmen. There are two foundries for bronze castings, one for small, the other for large castings, and the work turned out of both bears a high character. A specimen of this work is retained by the institution in a beautiful fountain, which ornaments one of the courts of the building. The models for casting are made in the establishment. In the first division of pupils, in reference to their callings, there are usually some whose art is connected with the fine arts in some of its branches, and these have an opportunity during part of the week, to attend the courses of the Berlin Academy. The future chemists work for half the year in the laboratory. They are chiefly employed in chemical analysis, being furnished with the requisite materials for practice by the institution. In the shops for the instruction of mechanics are machines for working in wood and the metals, a steam engine of four horse power, a forge, tools of a great variety, lathes, &c. The pupils have the use of all necessary implements, according to their progress, and are gradually taught, as if serving a regular apprenticeship. When capable, they are enabled to construct machines which may be useful to them subsequently, as a lathe, or machine for cutting screws, or the teeth of wheels, &c., and are furnished with all the materials for the purpose, the machine becoming their own property. In these workshops, also, the models for the cabinet of the school are made. This is by far the most complete establishment for practice which I met with in any institution, and I believe the practice is both real and effectual. It involves, however, an expenditure which in other cases it has not been practicable to command. The scale of the whole institution is, in the particular of expenditure, most generous.

This is one specimen of the various plans which have been devised to give practical knowledge of an art in connexion with theory in a school. It is first most judiciously laid down that certain trades cannot be taught to advantage in a similar connexion, but that the practical knowledge must be acquired by an apprenticeship antecedent to the theoretical studies. There are, besides, however, a large number of trades, the practice of which is to be taught in the institution, and requiring a very considerable expenditure to carry out the design properly. This could not be attempted in a school less munificently endowed, and requires very strict regulations to carry it through, even here. The habits of a school workshop are, in general, not those of a real manufactory, where the same articles are made to be sold as a source of profit; hence, though the practical knowledge may be acquired, the habits of work are not, and the mechanic may be well taught, but not well trained. At the private schools of Charonne, workshops were established, giving a variety of occupations to the pupils; but the disposition to play rather than to work, rendered these establishments too costly to be supported by a private institution, and the plan adopted instead of this, was to make the pupils enter a regular workshop for a stated number of hours, to work for the proprietor or lessee. This plan remedies one evil, but introduces another, that as the machinist takes orders, with a view to profit, the work may have so little variety as only to benefit a small class of the pupils. The pupils at Charonne are, however, under different circumstances from those at Berlin; they are generally younger, and, being independent of the school, where they pay for their education, are

not under the same restraint as in the other institution; hence the experience of one school does not apply in full force to the other. At Dresden, in a school somewhat similar to that of Berlin, a different mode from either of those just mentioned has been adopted. An arrangement is made with a number of mechanics, of different occupations, to receive pupils from the schools as apprentices, allowing them the privilege of attending, during certain specified hours of the day, upon the theoretical exercises of the institution. Where such an arrangement can be made, the results are unexceptionable, and the advantages likely to accrue to the mechanic arts, from the union of theory with practice, will offer a strong inducement to liberally disposed mechanics to take apprentices upon these terms. Small workshops, connected with an institution, must necessarily offer inferior advantages, even if closely regulated, so as to procure the greatest possible amount of work from the pupils; this should not be done for the sake of the profit, but to give him genuinely good habits.

The difficulties in giving practical instruction in the chemical arts are not to be compared with those under discussion, and will be found to have been satisfactorily obviated in several schools. This subject will receive its more appropriate discussion in connexion with the polytechnic institution of Vienna, where the chemical department, at least as far as manufacturing chemistry is concerned, is generally recognized as having produced the best results of any yet established.

Returning to the subject of the theoretical instruction in the Berlin institute of arts, the following statement will serve to show the succession of the courses, with the time devoted to each:—

#### WINTER COURSE.

**MONDAY. First Class.** First division—drawing and sketching machines, eight A. M. to twelve o'clock. Discussion of machines, estimates of power, &c., two P. M. to five P. M. Second division—machine drawing, eight to ten. Modelling in clay, ten to twelve. Physics, two to five.

**Second Class.** Machine-drawing, eight to ten. Modelling, ten to twelve. Elements of geometry, two to four. Repetition of the lecture, four to five.

**TUESDAY. First Class.** First division—architectural plans and estimates, eight to twelve. Practical instruction in machinery, two to five. Second division—ornamental and architectural drawing, eight to twelve. Trigonometry, two to five.

**Second Class.** Ornamental and architectural drawing, eight to twelve. Physics, two to four. Repetition of the lecture, four to five.

**WEDNESDAY. First Class.** First division—original designs, eight to twelve. Discussion of machinery. Second division—mineralogy, eight to nine. Machine-drawing, nine to twelve. Trigonometry, two to five.

**Second Class.** Machine-drawing, eight to twelve. Practical arithmetic, two to five.

**THURSDAY. First Class.** First division—drawing and sketching machines, eight to twelve. Architectural instruction, estimates, two to five. Second division—decorative and architectural drawing, eight to ten. Modelling in clay, ten to twelve. Trigonometry, two to five.

**Second Class.** Decorative and architectural drawing, eight to ten. Modelling in clay, ten to twelve. Physics, two to four. Repetition of the lectures, four to five.

**FRIDAY. First Class.** First division—architectural plans, eight to twelve. Practical instruction in machinery, two to five. Second division—machine-drawing, eight to twelve. Physics, two to five.

**Second Class.** Machine-drawing, eight to twelve. Elementary mathematics, two to four. Repetition of the lesson, four to five.

**SATURDAY. First Class.** First division—perspective and stone-cutting, eight to twelve. Original designs, two to five. Second division—mineralogy, eight to nine. Decorative and architectural drawing, nine to twelve. Trigonometry, two to five.

**Second Class.** Decorative and architectural drawing, eight to twelve. Practical arithmetic, two to five.

The summer term, which follows this, embraces the practical instruction.

#### SUMMER TERM.

**MONDAY. First Class.** First division—in the work-shops from seven A. M. to twelve, and from one until seven P. M. Second division—machine drawing, eight to twelve. Applied mathematics, two to five.

**Second Class.** Machine-drawing, eight to ten. Modelling, ten to twelve. Chemistry, two to four. Repetition, four to five.

**TUESDAY. First Class.** First division—analytical dynamics, eight to nine. Drawing of machines from original designs, nine to twelve. Machinery, two to five. Second division—decorative

and architectural drawing, eight to twelve. Chemistry two to five.

**Second Class.** Decorative and architectural drawing, eight to twelve. Elementary mathematics, two to four. Repetition, four to five.

**WEDNESDAY. First Class.** First division—in the work-shops from seven to twelve, and from one to seven. Second division—machine-drawing, eight to ten. Modelling, ten to twelve. Applied mathematics, two to five.

**Second Class.** Machine-drawing, eight to twelve. Practical arithmetic, two to four. Materials used in the arts, four to five.

**THURSDAY. First Class.** First division—in the work-shops from seven to twelve, and from one to seven. Second division—machine-drawing, eight to ten. Modelling, ten to twelve. Applied mathematics, two to five.

**Second Class.** Decorative and architectural drawing, eight to ten. Modelling, ten to twelve. Chemistry, two to four. Repetition of the lesson, four to five.

**FRIDAY. First Class.** First division—analytical dynamics, eight to nine. Drawing of a machine for an original design, nine to twelve. Machinery, two to five. Second division—chemistry, eight to nine. Applied mathematics, nine to twelve. Chemistry, two to five.

**Second Class.** Machine-drawing, eight to twelve. Elementary mathematics, two to four. Repetition of the lesson, four to five.

**SATURDAY. First Class.** First division—in the work-shops from seven to twelve, and from one to seven. Second division—decorative and architectural drawing, eight to twelve. Applied mathematics, two to five.

**Second Class.** Decorative and architectural drawing, eight to twelve. Practical arithmetic, two to four. Materials used in the arts, four to five.

The chemical division of the practical classes is engaged every day in the laboratory. On Tuesday and Wednesday the library is open for reading from five to eight P. M.

The collections for carrying out the various branches of instruction are upon the same liberal scale with the other parts of the institution. There is a library of works on architecture, mechanics, technology, the various arts, archeology, &c., in German, French and English. This library is open twice a week, from five to eight in the evening, to the pupils of the first class of the school, and to such mechanics as apply for the use of it.

There is a rich collection of drawings of new and useful machines, and of illustrations of the different courses, belonging to the institution. Among them is a splendid work, published under the direction of Mr. Beuth, entitled *Models for Manufacturers and Artisans*, containing engravings by the best artists of Germany, and some even from France and England, applicable to the different arts and to architecture and engineering. Among the drawings are many from original designs by Shenckel, of Berlin. There is a second useful but more ordinary series of engravings, on similar subjects, also executed for the use of the school. These works are distributed to the provincial trade schools, and presented to such of the mechanics of Prussia as have especially distinguished themselves in their vocations. The collection of models of machinery belonging to the school probably ranks next in extent and value to that at the Conservatory of Arts of Paris. It contains models of such machines as are not readily comprehended by drawings. Most of them are working models, and many were made in the work-shops of the school. They are constructed, as far as possible, to a uniform scale, and the parts of the models are of the same materials as in the actual machine. There is an extensive collection of casts, consisting of copies of statues, basso relievos, utensils, bronzes, and vases of the museums of Naples, Rome, and Florence, and of the British Museum, and of the models of architectural monuments of Greece, Rome, Pompeii, &c., and copies of models, cameos, and similar objects; those specimens only have been selected which are not in the collection of the Academy of Fine Arts of Berlin, to which the pupils of the Institute of Arts have access. There are good collections of physical and chemical apparatus, of minerals, of geological and technological specimens.

The instruction is afforded in part by the lectures of the professors, aided by text-books specially intended for the school, and in part by the interrogations of the professors and of the assistants and repeaters. At the close of the first year there is an examination to determine which of the pupils shall be permitted to go forward, and at the close of the second year to determine which shall receive the certificate of the institute. Although the pupils who come from the provinces are admitted to the first class of the institute, upon their presenting a testimonial that they have gone through the courses of the provincial schools satisfactorily, it frequently happens that they are obliged to retire to the second, especially from defective knowledge of chemistry.

The cost of this school to the government is about twelve thousand dollars annually, exclusive of the amount expended upon the practical courses and upon the collections—a very trifling sum, if the good which it is calculated to do throughout the country is considered. The comparatively recent existence of the institution, does not admit of appealing to decided results which have flowed to the mechanic arts in Prussia from its establishment, but there can be no doubt of its tendency, and its pupils are already known to be making their way successfully, in consequence of the advantages which they have here enjoyed.—*Pres. Bach's Reports.*

### GRAND DUCHY OF BADEN.

The Grand Duchy of Baden contains about 5929½ square miles of territory, with a population of about 1,220,000 inhabitants, comprised in 110 cities and towns, 36 market towns, with 1,686 villages.

The reigning family is Protestant, the people Protestant and Catholic, and the followers of both religions, with no apparent difference of feeling on the subject of education, show an equal degree of willingness in sending their children to the schools.

The Catholic inhabitants, 814,000 in number, are instructed by 1,700 schoolmasters, (of whom 300 are assistants,) in 1,294 elementary schools.

The Protestant part of the population, amounting to about 369,000 persons, are taught by 790 masters, (of whom 200 are assistants,) in 583 schools.

The funds for the support of the Volk-schulen proceed from three separate sources:

1st. The Volk-schulen, (popular schools) instituted, organized, and superintended by the State, from the State likewise derive that portion of the funds necessary for their support which is not supplied by other sources.

2nd. Each individual parent whose child derives benefit from the institution, is called upon to contribute his part towards its maintenance.

3rd. Various sources appropriated to the same purposes prior to the establishment of any general system, have, of course, been retained to diminish the burden of the State and of the parents.

Besides the eleven elementary schools, there are twenty-nine high schools, two universities, a polytechnic school, a deaf and dumb school, a blind school, and two distinct seminaries for Catholic and Protestant schoolmasters, each excellent in their system and organization, the Catholic containing about 112 scholars, the Protestant 50.

The organization of the educational establishment is extremely simple. With the minister of the Interior rests the principal moving power, while to the clergy is committed the general superintendence. The Bishop, of course, is at the head of the clerical branch of the administration, but each large district has its deacon, whose especial office it is to superintend, direct and govern the various schools within his department. Under him, again, the immediate superintendence of the schools is confided to a committee of the parish council, presided by the clergyman of the place, whose duty it is, by constant visits and examinations, to make himself thoroughly acquainted with the state of the school, and the conduct of the schoolmaster therein, to counsel, advise, and reprove him where necessary; and in cases where the master is either obstinate in error, or firm in opposition to the opinion of the clergyman, who has no power of compulsion, the question at issue between them is brought first before the parish council, thence, if still unsettled, before the deacon, and ultimately before the grand ducal council for public instruction. In addition to this regular organization, each large district has a certain number of inspectors, whose duty it is to hold a public examination of each primary school, at least once in the year, and to make a general report of the state of each to the government.

Reading, writing, arithmetic, and singing, are taught in all the schools of Baden; and a thorough knowledge of the chief doctrines of the Christian religion is invariably communicated in Christian schools. Under a well-instructed and judicious master, however, I have seen these branches of study carried far beyond their mere first principles, and that in a small school in a bad and poor situation. He had given to his scholars a very considerable knowledge of plain trigonometry; he had made his lessons in reading a vehicle for conveying much general information, and his lessons in writing a means of improving the style and of exercising the thinking faculties of his pupils. Not only were the scholars thoroughly acquainted with biblical history, but most of them could point out the geographical position, and many statistical facts concerning the countries of which they spoke, and could reason clearly and rightly upon any simple proposition placed before them.

*James' Educational Institutions in Germany.*

### GRAND DUCHY OF NASSAU.

The Duchy of Nassau contains, as near as possible, 1,735 English square miles, with a population of 362,652 souls, the younger part of whom are instructed by 850 masters, in 680 primary schools. These 680 schools received, during the year 1833, the immense number of 66,535 scholars, while about 500 youths were educated in the higher government establishments, and a considerable number in the private schools of Nassau, amongst which are some of the best in Germany. This gives an average of rather more than one scholar to six of the population, 77 to each teacher, and 98 to each school.

At six years of age each child not supplied with other education, (the reality of which education must be proved to the satisfaction of a government officer and school inspector,) enters the Volk-schulen, in which he remains six hours every day, with the exception of Sunday, Wednesday and Saturday; the whole of the first, and the afternoons of the two latter days being left free. During eight years his studies in the primary schools continue, two years being assigned to each of the four classes into which the schools are divided. In case of early proficiency, however, sufficiently proved by the public examination, the scholar can pass from a lower to a higher class before the specified time.

Each class is divided into two parts, and in these eight divisions, the child receives instruction in religion, morals, the German language, reading, singing, arithmetic, writing, composition on given themes, (generally on subjects of every day utility,) together with the elements of geography, history, natural history, natural philosophy, and the economy of health, as well as some general knowledge of agriculture and manufactures.

For the purpose of facilitating the objects of education, each schoolhouse is furnished with a small school library, and with what is called a school apparatus, or large tables of figures, letters, &c., for teaching the younger children; boards for carrying on calculations before the scholars, and other objects of the same kind. To the schoolhouse which must be supported by the parish, is in general attached a garden, a fruit-tree school, and a play ground.

The schoolmasters for the Volk-schulen are supplied by a Normal school, in which, during 1833, were educated 93 schoolmasters. Each head master has one or more assistants; and, when become unfit for further service by any natural cause, he is entitled to a pension of at least one half of his former salary, unless his conduct have merited punishment. The widows and orphans of school masters are provided for by an especial fund.

The immediate superintendence of the popular schools in each parish is entrusted to a school committee called Schulvorstand, which consists of the clergymen, an officer called Schultheisen, and two or three members of the parish council, whose nomination must be approved by the higher authority of the school inspector. The duties of this committee are to examine the state of repair and cleanliness of the schoolhouse, the conduct of the master, and the method of teaching; and also to ascertain, by monthly lists prepared by the schoolmaster, that all capable children regularly attend the schools, taking measures to punish by fine the negligence of parents, where cases of absence are reported.

The school inspector holds an authority superior to that of the school committee, as a commissary of the government, appointed to superintend the schools of a certain number of parishes. The schoolmasters within his district are under his control and direction; and it is a part of his duty to insure their improvement in knowledge and method, by requiring them to attend conferences with each other, by demanding from them written answers to various general questions, and by communicating to them such instructions as he thinks necessary from time to time.

The Pedagogium affords instruction of a higher grade, comprising lessons in Latin, Greek, French and German, mathematics, with the application thereof to ordinary life, natural history, natural philosophy, technology, geography, history, religion, writing, drawing, singing, and gymnastics. The regular period of attendance on the Pedagogium is four years, or from ten till fourteen years of age. The classes are four, and the rise from one class to another takes place alone after a general public examination, which is held before one or more commissioners of the government, and lasts two or three days.

Besides assistant masters of different sorts, each class has its head master, and the whole establishment is governed by a rector, who is entrusted with a considerable degree of power over both masters and scholars, and who is the organ through which the will of the government concerning the school in which he presides, is communicated to all persons interested. Through his intervention, also, the wishes and opinions of those under him are laid before the higher authorities. The masters are required to hold conferen-



ces amongst themselves concerning the state of the school, &c., at least once a month; and on these occasions the rector presides, but the plurality of voices decides any question at issue in the conference. In the person of the rector, the duties of teacher are combined with those of administrator; but nevertheless so much of his time is not devoted to the former functions as is absolutely required from the other masters.

The rector gives twenty hours' instruction weekly, while each of the class masters is expected to give twenty-five.

From the highest class of the *Pedagogium*, the scholar enters the lowest class of the *Gymnasium*, and in this new school pursues his studies exactly from the point where they ceased in the other. The instruction in ancient and modern languages is carried further; a course of Hebrew is added for the theological students. Ancient geography, Greek, Roman, German antiquities, and universal grammar, also receives attention. The outlines of Astronomy, together with various branches of philosophical study, (which in Germany is subjected to infinite subdivision,) are here taught; and all the objects of instruction begun in the *Pedagogium*, are pursued as far as the knowledge and abilities of the masters and scholars will permit. Drawing, dancing, music, riding, gymnastics, swimming, &c., are here, however, objects of private study, left to the option of the students.

Besides these general establishments, there exists a number of institutions for particular kinds of education, the most important of which is the Normal school, or school for future masters of elementary schools. This establishment, I have every reason to believe, is conducted with the most scrupulous care. It is provided for at a very considerable expense by the state, and I know that the most particular attention is directed towards maturing the judgment, and confirming, directing, and cultivating the moral feeling of those who are destined to form the hearts and understandings of the people.—*N.*

#### GRAND DUCHY OF HESSE.

If there are as many as 30 children in the parish between the ages of six and fourteen, and capable of being taught, the law requires that a school should be established; and, when the number shall exceed 100, that two schools be opened; but where it is upward of 250, three must be opened. Each school must have its own master; but he is not permitted to appoint an assistant of his own mere motion. The local committee arrange for the subdivision into classes according to age, sex, &c. There are two kinds of schools, the National Schools, where children of the established religion only are taught, and District Schools, into which, children are admitted without reference to the parents' creed. No district school can be opened without the preliminary vote of the majority of the parochial board, in conjunction with the parish clergy and the more respectable inhabitants; and this vote must receive the "approbatur" of the government. The same process is necessary where it is wished to convert a district into a national school. No teacher is appointed unless he has passed two examinations before a special board of examiners, and has been admitted a candidate; and where the appointment vests in any local or other patron, the appointment is invalid unless it be given to such a candidate. The subjects of instruction must include morals and biblical history by the master, and the principles of the established religion by a parochial minister; writing, reading, grammar, arithmetic, and singing. Besides these, the following are recommended: the rudiments of geography, national history, agriculture, natural history, and linear design. Wherever it is practicable, schools of industry are combined with the national schools, for the purpose of affording instruction to the boys in the management of trees, gardens, &c.; and to the girls in spinning, sewing, knitting, and frequently coarse embroidery. The vacations can in no case exceed eight weeks in the twelvemonth; the hours of instruction are five hours in four days, and three hours on two days, of the week. The number of hours in the schools in rural districts is reduced during the summer season. The Local Board or Committee consist of the clergy and burgomaster as permanent members, and certain inhabitants appointed by the Head Board of Instruction upon the nomination of the local authorities of the district. The general control of all the national schools is vested in a Central Board, subordinate to the Minister of the Interior and Justice: the better class of schools is under the control of the "Council of Superior Instruction." Grants of money are made where the parishes are too poor to maintain schools out of their own resources.

First Publication of Central Society.

The following statistics are from Hawkins' Germany:

*Hesse Cassel*.—1 University, (422 students in 1833.) 1 Lyceum. 1 *Pedagogium*. 6 *Gymnasiums*. 3 Seminaries for Teachers. 2 Academies for drawing and painting. 2 Institutions for foresters. 63 Town schools, and 291 Protestant, and 63 Catholic parish schools. *Hesse Darmstadt*.—1 University. 1 For foresters. 1 Philological Seminary. 7 *Gymnasiums*. 2 Seminaries for teachers. 4 Real Schools. 16 Schools of Industry. 1 School for each parish, viz., 421 Protestant, 146 Catholic,=567.

#### AUSTRIA.

Austria has a system\* of education, which from the village school to the university, is gratuitously open to all, and which in all its departments, is based on religion, and governed and moulded by the State. Its universality is secured not by direct compulsion as in Prussia, but by enactments which render a certificate of school attendance and educational proficiency necessary to exercise a trade, or be employed as a workman,† to engage in the service of the state in any capacity or to be married. Besides this it is made the interest of the wealthy land-holders to contribute liberally for the education of their tenants and the poor, by throwing upon them the support of the pauper population.

All the institutions for education, are under the supervision of a Board or Council (the *Hof-studium Commission*) at Vienna, composed of laymen appointed by the crown. It is the duty of this body to investigate all complaints against these institutions; suggest and prepare plans of improvement, and counsel the crown in all matters referred to them. Under them is a graduated system of superintendence, to be exercised jointly, by the civil and spiritual authorities in the various sub-divisions of the empire. The bishop and his consistory jointly with the *landestelle*, has charge of all the scholastic institutions of the *diocese*; the rural dean, jointly with *kreisampt* of those of a *district*, the parochial incumbent, and the civil commissary, those of a *parish*. This general arrangement has reference to the Catholic establishment, but the proper authorities of the Protestant, Greek, and Hebrew Churches are substituted for those of the Catholic, for all that regards the members of their several communions.

There are six classes of schools subjected to the superintendence of the education-board; namely, the popular, the gymnasial, the philosophical, the medico-chirurgical, the juridical, and the theological. The four last of these, form separately the objects of various special institutions; and, combined together, they constitute the four faculties of the universities. The *gymnasium* is the school for classical learning, mathematics and elementary philosophy; and the popular schools comprehend the establishments of various degrees, in which instruction is imparted of a more practical character, to those whose station in life does not fit them for the study of the learned languages. The lowest of these are the *volks-schulen*, or, as they are often termed, the *trivial* or the *German* schools, established or intended to be established in every district or parish of town or county, for the primary instruction in religion and morality, reading, writing, and accounts. In the larger places are also numerous *upper schools*, *hauptschulen*, wherein a somewhat more extended education is given, for persons designed for the mechanical arts and other similar pursuits. These have an upper class who receive instruction in drawing, elementary geometry, and geography, and with it is combined a normal school for teachers in the *volks-schulen*. In the larger towns are also commercial academies, termed *real-schulen*, in which are comprised two divisions of scholars; the one general, receiving instruction in accounts, geography, and history; the other special, having in addition thereto, teachers in book-keeping and the principles of trade for mercantile pupils, in natural history and rural economy for those intended for agricultural life, in mathematics, chemistry and principles of art for students in the higher arts, and in various foreign languages, especially English, French, and Italian, for those who may desire to receive such instruction. In the *volks-schulen* girls are taught, except in rare instances in separate rooms from the boys; and for the superior instruction of females there are distinct establishments corresponding with the *hauptschulen* and *real-schulen* of the boys, many of them managed and directed by certain communities of nuns, which are especially preserved for the purpose of education. Industrial schools of various kinds, and for both sexes, are also in some parts combined with these more general educa-

\* The following account of the educational system of Austria is abridged mainly from Turnbull's *Austria*, published during the present year in London. Some of the statistics are from Hawkins' Germany.

† Turnbull mentions an instance of a large manufacturer in Bohemia, who was fined for employing a workman, not provided with the requisite certificates of education.

tional institutions; but the expenses attending such establishments prevent there being very numerous.

The establishment thus last described constitute the class of popular schools. The next above these are the *gymnasial*; of which there are one, or two, or several, in each district, according to the extent of its population. The pupils of the gymnasium are divided into several classes: the earlier ones are taught in religion, moral philosophy, elementary mathematics and physics, and Latin philology. To these subjects are added, for the more advanced classes—partly as perfect courses at the gymnasium, and partly as introductory to the higher instruction in the same branches at the lyceum or university—general history (and especially that of Austria,) classical literature, Greek philology, æsthetics (namely, rhetoric, poetry, and a knowledge of the fine arts,) and the history of philosophy. Above the gymnasium are the eight universities of Prague, Vienna, Padua, Pavia, Lemberg, Gratz, Olmutz, and Inspruck; to which must be added the Hungarian university at Pesth. These are divided into two orders—those of Prague, Vienna, Padua, Pavia, and Pesth, are of the first having chairs for all the four faculties of theology, law, medicine, and philosophy; the others have a smaller number—as for instance, Gratz which has but three, having no professorship of medicine, and Lemberg, which has only two. In further addition, according to circumstances and localities, professorships are established, either at the gymnasium, the lyceum, or the university, in the Italian and Oriental languages, in theoretical agriculture, astronomy, chemistry, mechanics, and other branches of practical science. In most of the provincial capitals, where no university exists (in such towns, for instance, as Linz, Laybach, Klagenfurt, &c.,) there is an institution, under the name *Lycæum*, which answers the purpose of a minor university; wherein public courses of lectures are given in some or all of the four faculties, and in other branches of knowledge. The *degree* cannot, indeed, be taken at the *lycæum* in any of the faculties: but certificates, may be there obtained, which are accepted in lieu of those of the universities for a large number of cases where certificates are required, and for youths who require them not, the education of the *lycæum*, extending as it does to the highest Greek and Latin classics and natural philosophy, answers every purpose of general education. Of these *lycæums* there are, in the empire twenty-three under Roman Catholic direction; besides eleven Protestant, Lutheran, or Calvinist, and one Unitarian. For the instruction of the Hebrew subjects there are gymnasiums and other schools, wherein the same books are read as in the general establishments of the empire, except only that works of Jewish, are substituted for those of Christian, theology. In special branches of knowledge the government establishments are very numerous: medical and surgical academies, clerical academies, polytechnic schools, military institutions in all branches, and a college for the Eastern languages, &c.

The popular schools are inspected and directed by the parochial incumbent, who, with a view to this duty, is bound to receive instruction, previous to his induction to a benefice, in the system of scholastic management, or, as it is termed in the language of the edicts, the *science of pedagogy*. He is required at least twice a week, at certain fixed hours, to examine and catechise the pupils, and to impart to them religious instruction; the parish or district being obliged to provide him with a carriage for that purpose, when the schools to be visited are distant from his residence. He orders removals from lower to higher classes, and grants those certificates, without which no pupil can pass from the popular school to the gymnasium. He is bound to render, periodically, statistical and discriminating returns on the state of the schools, both to his spiritual superior and to the *kreisampt*; to urge on parents the great importance of education to their offspring; and to supply books to those who cannot afford to purchase them, and clothes (so far as the poor fund or private contribution may enable him to do so) to such as, for want of clothing, are prevented attending the schools. Where children of different creeds are intermixed in one school, religious instruction and catechization is confined to the last hour of the morning and afternoon attendance, during which hour the non-Romanists are dismissed to receive instruction elsewhere from their respective pastors; but where the number of non-Romanists is sufficiently great to support a separate school, the minister

of that persuasion, whatever it may be, is charged exclusively with the same duties as, in the general schools, are imposed on the parish priest. To ministers of all professions an equal recourse is by the terms of the ordinances, allowed to the aid of the poor-fund and of the grants from the *kreisampt*. If the schools be too distant or too numerous for the proper supervision of the local minister, a separate instructor is named by the bishop, or, if the school be protestant, by the provincial superintendent; and, for the visitors of all denominations, the expense of a carriage is equally borne by the public. Except in the points above enumerated, the parochial minister has no power to act, but only to report; in all those connected with defects or deficiencies of the buildings, he, in conjunction with the civil commissary, reports to the *kreisampt*, and in those of merely scholastic nature, as well as in the conduct of the teachers, he addresses his remarks to the inspector of the district.

The teachers at all the popular schools are required to produce testimonials from the normal school at which they have been instructed, and receive their appointment from the diocesan consistory, or from the provincial chief of any special religions for which they may be intended, but require in all cases the confirmation of the *landesstelle*. They are provided with residences attached to the schools, together with fixed stipends during good health and good conduct, and are allowed superannuation pensions, which, if they shall have served for a period of ten years, are extended to their widows, and to their orphans under fourteen years of age.

Each district has an *aufseer*, or *inspector* (named by the bishop from among the parochial clergy holding benefices therein) who compiles detailed statements on every point connected with education, for his spiritual superior, and for the *kreisampt*. Once a year he makes a tour of personal inspection, examines the pupils, distributes rewards to the best scholars, and supervises alike both the ministry and the teachers; most especially enforcing the rule, that those books only shall be used, and those instructions only be given, which have been commanded by imperial edict. Above these district inspectors, each diocese has a higher officer, under the name of *oberaufseer*, or inspector-general, who is named by the crown and is in most cases a member of the cathedral chapter. His supervision extends not to the *volks-schulen* only, but also to the *real* and the *haupt-schulen*; and for these purposes he is the *district-inspector* for the city of his residence, and the *inspector-general* for the whole diocese. He is the official referee, whose opinion the consistory are bound to demand in every exercise of their educational functions, and by whom they are in fact principally guided; since every matter wherein their sentiments may not agree with his, must be referred to the decision of the *landesstelle*. He examines and certifies teachers for appointment by the consistory; receives quarterly statements in all details from his subordinate inspectors, and embodies them into general reports, for the *landesstelle* and the crown; finally, as supervisor of spiritual instruction, he examines candidates for orders, and novices for monastic vows, and grants certain testimonials of proficiency which are indispensable for their admission. To the *episcopal consistories*, headed by the bishop, is committed the general supervision of all the scholastic concerns of the diocese, the regulations of matters of discipline, the communication of instruction, and the investigation of delinquencies. It is a part of their functions to order the erection of schools, to appoint the teachers, to authorize the payment of pensions to teachers in sickness or in age, and to their widows and orphans, when entitled to them; but in these points, as in all others which involve any exercise of real authority, patronage, or influence, their acts are invalid without the confirmation of the *landesstelle*. For the professors of non-Romanist creeds, these respective functions are discharged in their several gradations by officers of their own persuasion. The protestant *seniors* and *superintendents* are the district-inspectors and the provincial inspectors-general for their respective communities; and the functions of the diocesan consistories are transferred to the central Calvinistic and Lutheran consistories at Vienna.

The schools of higher degree, the Gymnasium, the *Lycæum*, the theological seminary, and the University, are all, as well as the popular schools, more or less subjected to the supervision of the diocesan and his consistory; but these depend



more immediately on the educational board at Vienna. Over each of them presides a director, who is charged with the general management, in point both of discipline and instruction, acting under the orders of the board, or the edicts of the emperor. The various professors and teachers are all either named or approved by the landesstelle, or the educational board; the same discriminating precautions being adopted as at the popular schools, for the religious instruction of those who profess non-Romish creeds. In every station, and in the various branches of education, the pupils are subjected to half-yearly examinations by authorised visitors; and from the result of these examinations, as well as from the testimonials which each is bound to produce as to moral conduct, and also as to religious knowledge from the minister of his communion, the director forms the reports which are furnished to the government.

For the erection of *popular* schools, certain rules are laid down which ensure their erection as occasion may require. Although no ordinances compel education, yet the inducements held out to desire it are so great, that for schools of this description there is a constantly increasing demand, partly arising from the people themselves, and partly instigated by the spiritual and civil authorities; and, indeed, so urgent have of late years been applications to this effect, that it has become a usual, although not universal practice, to require of the parishioners, or the inhabitants of the district petitioning, that they shall bind themselves by voluntary assessment to bear the whole or a portion of the attendant expenses. After the locality has been fixed by the aufseer and the kreisamt, it depends on the landesstelle to issue the decree that the school be built; and, this being done, the law then provides for its gratuitous erection and completion. The lord of the soil is bound to grant the land and the materials; the inhabitants of the district to supply the labor; and the patron of the parochial benefice the internal fittings-up; all subsequent repairs, as well as the hiring of buildings for temporary accommodation, being a charge on these three parties jointly.

Notwithstanding, however, these ample provisions for general education, it will be readily conceived, that in a country where certain classes possess large pecuniary means, and high aristocratic feelings, instruction cannot be absolutely confined to public institutions. In Vienna and other cities many academic establishments of a superior order exist, endowed in the manner of our public schools; and in these, or in the schools of the monasteries before mentioned, wherein boarders are permitted to be received, or, finally, under private tutors in their own families, a large portion of the higher classes receive their education.

To the reign of the late Emperor Francis belongs the principal organization of the existing system, the foundations of which were laid in the earliest years of his reign (perhaps partially in that of his predecessor,) and the superstructure raised and moulded by a great variety of subsequent edicts. Its progress has encountered difficulties in various quarters.

To surmount these various obstacles, whether arising from indifference in the lower classes or repugnance in the higher, the government adopts, as usual, a gradual and cautious, but most persevering policy; often yielding for a time, but generally triumphant in the end.

Thus every year witnesses a decided progress; and so far has the system already succeeded, that, with the exception of Hungary, whence no returns are made, and where education is very loosely and inadequately attended to, above three-fifths of the juvenile population of the empire do actually receive scholastic instruction. According to official reports, there are in Transylvania, 52,698 children attending school, out of 64,227 capable of doing so: in the Military Frontier, only 60,878 out of 124,778; and in the entire residue of the empire, German and Italian, but always exclusive of Hungary, 1,536,104 out of 2,529,171. It appears, moreover, that, on the whole, a larger portion of boys go to school than of girls, as may be seen from the following analysis of the two last numbers given above, viz.:

In the whole empire, exclusive of Hungary, Transylvania and the military frontier—

Capable of going to school	males, 1,307,777
“ “ “	females, 1,221,394
	2,529,171

Actually going to school

males, 874,720  
females, 661,384

1,536,104

It has been stated, that although the course of education is mainly gratuitous, yet a small sum, amounting to 12 florins at the gymnasium, and from 15 to 30 florins at the universities, is paid by all who have not certificates of poverty, towards a fund for the grant of stipends to poor students.

The following statistics are gathered from an article in the first volume of the Central Society of education. There are 9 Universities, 36 Lycea, or Colleges, 21 Ecclesiastical Seminaries, [these three classes of institutions numbered in 1834, 864 professors and teachers in Theology, Physic, Law and Philosophy, with 20,586 students,] 26 military schools with 3,914 pupils, 127 Gymnasias with 900 masters, and 28,963 pupils, 24,931 national schools with 32,053 teachers, and 1,994,500 pupils. There are besides, an Equestrian Academy and Polytechnic Institute at Vienna; a Technical Institute at Gratz with 250 students, and another at Prague with 400 pupils.

#### POLYTECHNIC INSTITUTE OF VIENNA.

The whole institution is intended to fulfil a threefold purpose—as a school for the mechanic arts, manufactures and commerce, as a conservatory of arts and manufactures, and as an institute for the promotion of national industry. The last named object is effected by public exhibitions, from time to time, of the products of manufactures, under the direction of the institute. For the better execution of this object, a spacious building is now erecting on the premises, adapted to the occasional display and permanent deposit of specimens of the mechanic arts. The collections which form the conservatory of arts, are also used for instruction in the school, and will be described in connexion with it.

The whole institution is under the control of a director, who is responsible to the higher authorities of public instruction, and of trade and manufactures. The director is the general superintendent of the business of the institute, and of the instruction, but does not teach. He regulates the admission of pupils and the discipline. The money concerns are under the charge of a treasurer, who is responsible to the director. The interior officers are responsible to the same authority. The discipline of the scholastic department is simple, but rigid, no pupil being allowed to remain connected with it whose deportment is not proper. The courses are gratuitous, except a small entrance fee, and this is considered as warranting prompt removal when the pupil does not perform the duties prescribed by the institution.

The department of instruction is composed of three schools, a technical, a commercial, and a “real school.” The last named is a preparatory school for the two others, and may be entered as early as thirteen years of age. Its courses are of religious instruction, of German language, elementary mathematics, geography, history, nat. history, elocution, calligraphy, and drawing, and are obligatory upon the pupils. Italian and French may be studied if the pupil desires it. As these courses lead, in three years, to the other departments of the institution, the candidates for admission are required to possess the elementary attainments necessary to their successful prosecution. There are five professors and four teachers connected with this school, which is superintended by the vice-director of the institute. The instructors rank by regulation with those in the gymnasias or classical schools of the empire. The course of instruction is not as comprehensive as that in the Prussian real schools, but is an adequate preparation for the next higher divisions, which supply in part these deficiencies.

The technical and commercial schools furnish special instruction according to the intended pursuits of the pupil, though he may, in fact, select the courses which he wishes to attend, not being limited as to the number or character of the branches. The director advises with the pupil, on admission, as to the studies most appropriate to be followed, if his intended calling is fixed, and he is not allowed to join the classes, the courses of which require preparation, without presenting a certificate from the school at which he has been instructed, or being examined, to ascertain his proficiency. In regard to other courses, there is no such restriction. The age for admission is sixteen years.

The instruction is given in the technical school by eight professors and two assistants; the professors lecturing, and in some of the courses, interrogating the pupils. Certain lectures are also gone over by the assistant with the classes. The courses which combine practice with teaching, will be pointed out in enumerating the subjects of study. The division of these subjects, and the time devoted to them during the week, are as follows:



## I. General Chemistry, applied to the arts, five hours.

II. *Special Technical Chemistry*, ten hours. This course gives a particular account of all the processes of the arts of which the principles were developed in the general lectures. There is a special laboratory devoted to the course, where, under the superintendence of the professor or of his assistants, the pupils go through the processes on a small scale. Those who have a particular object in view, as dyeing, bleaching, printing upon stuffs, or the manufacture of chemical preparations or metallurgy, are directed in their investigations especially to the parts of chemistry which they will have to apply. Practice and theory are thus combined. III. *Physics*, with special reference to its applications, five hours. IV. *Elementary Mathematics*, including arithmetic, algebra, geometry, and mensuration, ten hours. This course is intended for those who have not passed through the real school. V. *Higher Mathematics*, five hours. There is a repetition by an assistant, also of five hours. VI. *Mechanics*, including the description and calculation of machines, five hours. This subject is founded upon a course of machines, considered as an application of descriptive geometry and drawing, superintended by an assistant. VII. *Practical Geometry*, including land and topographical surveying, levelling, &c., five hours. The lectures are accompanied by practice in the use of instruments in the field. VIII. *Civil and Hydraulic Architecture*, ten hours. This includes a complete course of engineering, in its various branches. It is accompanied by exercises in drawing. IX. *Technology*, or a general discussion of arts and trades, five hours. The subjects which come under the head of special chemistry are omitted in the lectures of this division. X. The assistant professor of chemistry delivers an extra lecture, daily, on the methods of measuring *Specific Gravities*, during part of the course. XI. *Elementary Drawing* for those who have not passed through the real school, five hours. There are extra courses in the Latin, Bohemian, and English languages, for those who wish to follow them.

The time devoted to drawing depends upon the student, but it is obvious that his knowledge must be very incomplete, and that he will carry away from the school but an imperfect record of descriptive geometry and its applications, unless he devotes a great deal of time to this branch. In this respect, the arrangement of the school is entirely different: from that at Berlin, where the drawings accompanying the courses are made as much a matter of regular duty, as the attendance upon the lectures themselves. This is certainly the proper plan, and while it appeared to me that the time spent in the graphic exercises at Berlin was even beyond the measure of their importance, I am decidedly of opinion that a strict attention to this department is essential.

The collections, by the aid of which these courses are carried out, are—1. An extensive collection of chemical preparations for both special and general chemistry. The pupils in special chemistry, as already stated, make preparations in the departments of the art which they intend to follow, and some of these are left behind them as specimens of their skill. In the department of the dyer, there is quite a large series of specimens collected in this way. The laboratories for both special and general chemistry are admirably adapted to their purpose. 2. A cabinet of instruments for the course of practical geometry. 3. A considerable collection of physical apparatus. 4. A collection of models of machines, and in engineering. 5. A technological cabinet of a most complete character, and admirably arranged; it contains many of the best specimens of Austrian arts and manufactures. All these collections are under the care of the professor in whose department they find a place; there being, besides, curators for the immediate charge of them, and for keeping them in repair. The cabinet of physical apparatus, and of models and machinery, were in the main supplied from the workshops of the institution. These shops have long been celebrated for the astronomical and geodesic instruments furnished from them. They are still kept up, though on a reduced scale, their chief object having been accomplished. They were never intended, like those of Berlin, to afford practical instruction to the pupils. The institution, indeed, does not recognize the principle that this can be done to advantage in the mechanical department. It is certain, as already stated, that great care is required to render such establishments of any avail beyond the point of giving to the pupil a general readiness with his hands, and that even when well conducted they are expensive. Success in practical chemistry requires essentially a very considerable knowledge of theory; the processes on a small scale, represent, in general, fairly those upon a large, and, experiments thus made, frequently save the outlay which is required to make them in a large way. The practice in a laboratory of a school is, besides, very nearly of the kind required for the manufactory. These, among other circumstances, render the problem in regard to successful preparation for the arts depending upon chemistry, different from that relating to the art of the machinist. It is in this department that the polytechnic school of Vienna is particularly strong. There can be no doubt that Austrian

manufactures in general have received a great impulse through the medium of this institution, and particularly of its scholastic department, but while praise is yielded to the different courses, the arrangements for teaching chemistry must be considered as having a preference over the others.

The lessons in the commercial school embrace the following subjects:—I. Commercial correspondence, three hours per week. II. The science of trade, three hours. III. Austrian laws relating to trade and exchange, three hours. IV. Commercial arithmetic, six hours. V. Book-keeping, by single and double entry, four hours. VI. Account of the materials of trade, their sources, uses, properties, kinds, adulterations to which they are subject, &c., four hours. VII. Commercial geography, three hours. VIII. History of commerce, three hours. There are five professors in this school.

Once a week the professors of the institute meet, under the presidency of the director, to confer on the business of the institution. Saturday is appropriated in part to this purpose, and there are no exercises for the students on that day. One of the professors is secretary of the Board. The professors rank by regulation with those of the universities.

The lectures last from October to August of every year. At the close of them, a pupil who wishes a certificate in any branch, presents himself, and is examined by a professor, in presence of the director and of two members of the imperial commission of studies. A student who has attended the lectures, and does not wish to be examined, may receive a certificate of attendance.

To supply the place of a regular division of studies for different callings, one of the earlier programmes contained a recommendation of certain courses of study as preparatory to particular occupations. The recommendations were the following:—For tradesmen, the two years of the real school, and one year of the commercial school; or for a more complete education, an additional year, embracing the courses of chemistry, physics, and technology of the technical school. For dyers, printers in stuffs, bleachers, manufacturers of chemical products, of salt, of saltpetre, for miners, metallurgists, brewers, &c.—special chemistry, physics, and technology, with some of the courses of the commercial school. For machinists, hydraulic engineers, mill-wrights, foreman in manufactories, and mining engineers—a course of two years was recommended, the first to embrace mathematics, physics, and drawing, and the second, mechanics, machine-drawing, and technology. As a preparation for agriculturists and foresters, courses of mathematics, physics, practical geometry, chemistry, and book-keeping. For miners—mathematics, physics, practical geometry, mechanics, drawing, and book-keeping. For surveyors—mathematics, physics, practical geometry, drawing, and book-keeping.

There is still a regular course laid down for architects and civil engineers, the satisfactory completion of which entitles to a diploma. The first year includes elementary mathematics, technology, and drawing; the second, higher mathematics, physics, and drawing; the third, the applied mathematics, mechanics, practical geometry, and drawing; the fourth, architecture, engineering, drawing, technology, chemistry, and book-keeping.

The library of the Institute is appropriated to the several departments, and is used by the students as well as by the professors. Yearly appropriations, beside the entrance and diploma fees, are devoted to its increase. The professors have the right of recommending such works to be purchased as they may deem of use in their departments. An annual is published by the institute, consisting of original and selected scientific articles, by the professors, and notices of the institution.—*Pres. Bache's Report.*

## AUSTRIAN DOMINIONS IN ITALY.

The population of this country amounted in 1835 to 2,455,539, comprising in 2233 comuni, forming nine provinces. The general introduction of elementary schools in Lombardy, commenced in 1822. Two objects are proposed in their establishment; the first being, to afford to the humblest class, both agricultural and manufacturing, instruction adapted to their condition; and the second, to furnish the youth of the middle classes with an education which shall fit them for pursuing commerce, agriculture, or the useful arts.

For the first object are designed the lesser elementary schools, in which are received separately children of each sex, between the ages of six and twelve. The instruction which they here receive comprises religion, reading, writing, arithmetic, the first rudiments of grammar; and for girls, needle-work and knitting. They are divided into two classes, and the course of instruction is complete in three years at most.

For the children of those above the lowest classes, there are higher schools, some of which are divided into three classes, and some into four. The first are for both sexes, the latter only for boys. In the two first classes of all these schools, the instruction is the same as that in the lesser schools; in the third class is taught calligraphy, composition, the higher parts of arithmetic applied practically to the

necessities of life; and, in the female schools, fine needlework and embroidery. In the boys schools, which have four classes, the preceding branches of instruction are followed by a course which lasts two years, in which are taught the elements of geometry, natural history and mechanics, and the drawing of ornaments, machines, maps, and architecture; the manner of teaching being both theoretical and practical. Some of these institutions are at the expense of the central government—some are provided for by the different communes. The higher schools of three classes for boys, as well as the lesser elementary schools for both sexes, are entirely at the expense of the commune; whereas the four class schools, and those of three classes for girls, are provided by the government. One of each of these last kinds is established in the principal town of each of the nine provinces, as well as one for girls in Crema and Cassalmaggiore.

Here we may observe three points in which the Austrian system of popular education is superior to that as yet established in France. First, girls have equal advantages with boys, as far as elementary education is necessary for them; and the commune are found able to support the whole expense; secondly, the superior schools, which have failed in France, are here in vigor, being supported by the government; and nine such, distributed amongst a population of only two millions and a half, seems a fair proportion. Another important feature in the education afforded at Lombardy is, that it recognises the great deficiency of any system of which religious instruction forms no part. The grand evil of the system is, that the instruction imparted is limited and moulded to suit the views of the government, and any independent exercise of the knowledge thus acquired, is jealously prevented.

We will now observe the increase of these various kinds of schools, during the ten years since their establishment, ending with 1832:

YEAR.	Higher Boy's Schools.	Higher Girl's Schools.	Lesser Boy's Schools.	Lesser Girl's Schools.	TOTAL SCHOLARS.	
					Boys.	Girls.
1822	19	11	2108	492	81,241	25,524
1832	57	14	2279	1184	112,127	54,640

Besides, these government schools, in which children from six to twelve years old are gratuitously instructed, there were in 1832, 228 schools for Sundays and holidays, where 4566 children above the ages of twelve are taught the duties of religion, and perfected in the knowledge which they had acquired at the public schools. These are opened gratuitously by parish priests and school-masters, in conformity with the following sentence in the instructions of the clergy, attached to the government regulations for elementary schools: "The prescribed period of attendance at the public schools being often insufficient for the necessary education of the children; in those places where there exists none but elementary schools, the priest will be required to give instruction in religion, and the school-master in other subjects, on the afternoons of holidays, to those above the age at which attendance at the public schools ceases to be obligatory."

In some large towns, charitable individuals instruct the shop-boys and apprentices every evening, in all that is most suitable to their condition.

All the asylums for foundlings and orphans have an elementary school attached to them. There are also in Lombardy thirty-six charitable boarding schools; twenty for 702 boys, and sixteen containing 732 girls.

The elementary schools, kept by private individuals, in which the scholars for their education amounted in 1832 to 241; containing about 5119 boys, and 459 with 8631 girls.

The private superior schools or colleges contain 721 boys and 1641 girls.

Altogether, therefore, we may estimate the number of children, chiefly between the ages of six and twelve, who were in 1832 receiving elementary instruction in Lombardy, at the considerable number of 188,879, i. e. one thirteenth of the inhabitants. At that date, there were only ninety-eight communes without a school, and most of these contained a population below that which the law obliges to maintain one. The readiness of the people to avail themselves of the benefits of education for their children may be judged of from the fact, that in 1832 there were in the 2253 communes of Lombardy, 3443 public school rooms, of which 473 were gratuitously erected by private beneficence, the rest being entirely at the expense of the commune.

The plans of government will not be complete till two institutions of still higher instruction for merchants and manufacturers shall be established, one at Milan, and the other at Venice. They will teach history, particularly of arts and commerce, the science of commerce, foreign languages, chemistry applied to the arts, architecture, mechanics, and hydraulics.

The government appoint provincial and district inspectors of public schools, on whose efficiency much of the success of the system depends.

To secure a supply of proper persons to assume the important office of school master must be a principal consideration in every system of general education. The means adopted for training young men for this employment in Lombardy appear rather deficient. A six-months'

course in the science of teaching, is given in the higher schools of Milan and Mantau, and three months in the other schools of four classes. After this course, the aspirant to the office of master must pass a year as assistant in the practice of teaching at some public school. Instruction in the science of teaching is also given to those intended for holy orders in the episcopal seminaries.

#### INFANT SCHOOLS.

The Abate Ferranti Aporti, the founder of a school for the deaf and dumb at Cremona, had the honor of first introducing infant schools into Italy, by the formation of one in the same town in 1829. The following extract from a communication of the founder, will give an idea of the principles upon which those schools are conducted in Italy.

The Abate first enumerates the evils of education received by infants abandoned to the care of their parents as observed at Cremona.

1. In the *moral habits*, obstinacy and caprice often manifest themselves, originating in the over-indulgence of their parents; the spirit of revenge taught them by the practice of satisfying the child for any pain he endures, by guiding his hand to strike the real or supposed author of the injury; shyness and awkwardness, caused by living only with their families; no habit of order; no practice of moral or religious duties. 2. As to their intellectual culture; all teaching confined to that of some uncouth, and sometimes indecent provincialisms; to telling them stories of witches, fairies, and apparitions, of ghosts and goblins, fit only to fill their minds with vain terrors. No developments afforded to the intellectual faculties; no direction adapted to form their young judgment; so that in short, the whole system of education given to their virgin minds, seems rather adapted to corrupt them in their first exertion, and in their earliest development. 3. In reference to their *physical faculties*; unnumberable mischiefs arise, whether from the practice of condemning children to sit for many hours a day without stirring in baby chairs; or from allowing them to indulge without check their naturally immoderate spirits. Excessive restraint causes weakness of body and every deformity which alters its proportions, and which often renders them wretched and useless through the remainder of their days. From the contrary extreme, serious accidents often occur, which leave behind them permanent injuries or lameness and mutilations, which render them a burden to society. From these causes result injury to their bodily health and strength, a moral corruption not easily remedied, and false ideas of things, and habits of forming erroneous judgments, are implanted in the tender minds of the children. These two last evils are the more worthy of attention, inasmuch as daily experience proves how indelible are the early impressions and first ideas which we receive in tender infancy. It is a false opinion, that at an early age children are incapable of learning anything reasonable. Children are apt to learn as soon as they can speak, and it is a sad waste of the most precious time of life, to allow them to occupy their first years in trifles. Nor is it more correct to suppose that they do not at that age employ their reason; any one who will observe their little sports, and listen to their conversation, will be convinced of it. It must not, however, be supposed from this, that we think it right to extend widely the sphere of instructions which we consider useful to infancy. Having established the possibility of instruction and education, we select only those subjects adapted to the nature of infants, and such as are suggested by the exercises they practice when left to themselves, without the direction of guide or master. For instance, we observe that children (even of a tender age,) at the sight of a new object, immediately ask its name. Now, why may we not profitably excite their curiosity, either by offering to their consideration objects necessary or useful to be known, or by asking them the names which they do not yet know of objects already familiar to them? In this way is obtained the advantage of teaching them the pure Italian, (the *patois* of all Lombardy is detestable,) and this, not by dry grammatical rules, but by actual example, the most efficient method at that age. 2. They are particularly fond of hearing stories and histories, and thus they listen with eager attention to their nurses or parents, when they relate the absurd fables common amongst the people. Let us avail ourselves of this natural curiosity, and we may advantageously substitute for these foolish and tasteless stories, some solid information, as, for instance, a sketch of sacred history, which may besides serve as an introduction to the doctrines of Christianity.

The children themselves are our best guides as to the fittest method of communicating this sort of information to their young minds. If we show them a picture representing either a figure or an action, they eagerly examine it, and immediately begin to ask, Who is this? Who is that? What is he about? What's that? &c. Selecting then the best pictures, representing scenes of the sacred history, and showing them to the children, explaining the subject and the persons represented, they will acquire with pleasure, and insensibly from their earliest years, much important religious knowledge.



Again, it is a well known fact, that children are fond of singing, and this exercise, when well directed, serves to give a proper tone to the voice, and to communicate to the ear a sense of proper intonation and harmony. It is besides of great use (and of this the schools afford repeated examples) in preventing every defect of the organs of speech, which, if neglected during the first years of childhood, may cause at a more advanced age the habit of stuttering; a most serious defect, which often becomes ridiculous and humiliating to persons of distinguished intellect. Lastly, children like to write, read, and count objects.

In conformity with the above observations, the following plan of education is constructed. As to the education and instruction of the intellect, it is proposed to effect this by the knowledge of familiar objects and of their names, disposed systematically, and distributed into classes; so that while children learn them, they may be directed to distinguish their likeness or unlikeness, the whole and its various parts, the genera and species. In this part of instruction are comprised the names of the various parts of the human body, of our clothes, and of the most common natural objects, divided into animals, vegetables and earths, of food, of buildings, and of their parts, &c.

The method employed for the communication of this and all other knowledge, is the demonstrative, that is, by the actual exhibition of the objects themselves, or of faithful representations of them. To this department of education belongs also the study of the alphabet, of reading, writing, and the first rules of arithmetic as well as of religion, regarded as a principal object, and treated historically, as is most adapted to this tender age, when we are almost incapable of abstraction.

To moral education and instruction belong the daily prayers in Italian for morning, noon, and evening, and for returning thanks, containing short but fervent liftings up of the mind to God, taken from the Scriptures and the catholic liturgy, and which are always accompanied with the Lord's Prayer, the Salutation of the Angels, &c. Add to this, the explanations of the principles of sacred history, from which we do not fail to deduce moral principles for the regulation of the conduct. The very discipline of the school, too, is all a moral education, since it is indispensable to exact obedience and subordination from all, by which they are habituated to order. Whenever, too, slight differences arise between the children, they are taken advantage of to establish principles of conduct and of mutual kindness which are not slow to strike root in their tender minds, nor easily lose their influence in after life.

Their moral education is also promoted by the Psalms, which they learn as they sing them. It is true, that they may not comprehend all contained in these hymns, but the time will come when they will understand their meaning; then, instead of the indecencies and nonsense contained in the songs of the people, they will find themselves instructed and strengthened with sentiments of a divine morality.

We now come to the physical education. The organs of the voice and of hearing, are educated by the exercise of singing, and by the inspection of prints (in the choice of which the best and most regular should be selected) the sight is educated to appreciate what is beautiful and well-proportioned. The games and gymnastic exercises adapted to their age and strength, contribute greatly to give them force and agility. As a part of physical education, we must besides consider the regular life which they lead at the school, their frequent recreations, even the studies being conducted in the manner of a diversion, their eating at fixed hours, and of wholesome food, the marching round the school-room, and the walking to and from the school.

Such are the principles upon which the Italian infant schools are founded. The furniture of one of these institutions is composed of few and simple articles. Besides the building and play-ground, with a few implements for gymnastic exercises, there are benches and desks with slates let into the wood, for the highest class. The mistress has a desk with drawers for the registers, prints, &c.

Everything being taught by means of the sight or of imitation, books are not necessary. The subjects of instruction, besides the prayers and psalms, are moral stories, or parts of the Scriptures, related to the children in pure and simple language, and afterwards more fully illustrated by pictures painted for the purpose by ladies of the societies, representing the scenes described, which particularly interest the children, and make them very attentive to the story, in order that, when the picture is exhibited, they may be able to understand it. This leads to questions on the scene represented in the picture, the persons, their attitudes, the color of their clothes, and innumerable others, all calculated to give a habit of observation and an idea of art. Pictures also of instruments employed in different trades, and men at work with them, are very interesting to the children, and afford a vehicle for much useful information. The youngest learn to repeat distinctly their own names, the parts of their persons, of their clothing, the furniture of the room, and so on. They are taught to count, first single numbers, then two at a time, three

at a time, and so on; and the four rules of arithmetic, all by means of a great frame having twelve wires stretched horizontally one beneath another, on each of which are strung twelve balls. Numeration, or the value of figures according to the space they occupy, is taught by a similar instrument, only having the wires perpendicular, with nine balls on each, all or any of which may be kept out of sight by means of a spring which retains them behind a board, by which the upper part of the wires is covered. The wires, beginning at the right of the spectator, correspond to the places of units, tens, hundreds, &c. Above each wire, may be placed moveable cards having the Arabic numerals on them, so as to exhibit to the children at the same time the actual number by means of the balls, and its corresponding Arabic representative. For teaching fractions another frame may be employed with horizontal wires, on the uppermost of which is strung a cylinder, on the second two cylinders, making, when joined, one of the same length as the first, and thus representing two halves; below is one divided into three equal parts, for thirds, another for quarters, and so on. Syllables, and then short words, are taught by placing on a frame, in view of all the children, moveable cards, having letters printed upon them. The more advanced are called upon to come to the frame and form a given word. They then pick out, one by one, from the case in which the cards are contained, each letter of the word, and then divide it into syllables, pronouncing each separately. Notions of the natural history of the domestic animals are taught by stories relating to them, and illustrated by pictures about which they are questioned as to their uses, their food, their paces, their cries, &c. with injunctions to treat them always with kindness. The girls learn to sew, &c., both sexes to knit, and other easy work, whilst the youngest occupy their hands in picking to pieces silk rags.

We may here remark, that in the garden attached to the infant school at Geneva, we remarked beds of shrubs and flowers, protected only by a low slight fence, by which means the children are accustomed to abstain from exercising that destructive disposition in which they are naturally inclined to indulge. This would be an excellent idea, wherever it could be contrived in England, where it is a universal complaint, that the working classes, young and old, are more mischievous than those of any other nation.

It is found in Italy, that a distribution of prizes in the infant schools is rather injurious than otherwise, those who obtain them not understanding their value; while the rest, who receive nothing, are hurt and disappointed. Corporal punishments are entirely unnecessary, and are completely excluded from these schools, the mistress being only allowed to make the offender stand apart from his companions; and to induce him, by kind remonstrance, to feel sorrow for his fault and a desire for pardon.

A great deal of the benefit of these schools arises from the proper selection of the mistress, who keeps a register of any observations or incidents which she may think interesting. Ladies are also appointed by the societies to inspect the schools in turn, and they also keep a register of any interesting facts or reflections which may occur to them, which are read at the meetings of the committee. From this accurate study of a number of children, at an age when previously formed habits have less power to counteract the efforts of the teacher, the most valuable hints for the science of education may be obtained.

In the spring of the present year, 1837, there were in existence in the Lombardo-Venetian kingdom, besides the infant schools at Cremona above mentioned, another in that province, one in each of the provinces of Mantau and Bergamo, two at Venice, one at Vicenza, and one at Verona, while others were in preparation.

In the Venetian states, including a population of 1,957,600, there are 1348 elementary schools. Of these 28 are called *upper schools*, and consist, each of them, of four classes; and 1320 are called *lower schools*, in which there are but two classes. The age of the children attending them is from six to twelve years; the instruction is gratuitous, and the whole number attending them in 1836, was about 78,000. The subjects of instruction for each class in the elementary schools are thus limited; in the *first* class, religion, the alphabet, vocabulary, rudiments of the Italian grammar, instructive tales, first principles of arithmetic, and writing copies; in the *second* class, religion, compendious history of the Old Testament, duties of subjects, second part of grammar, elements of composition, second part of the principles of arithmetic and writing; in the *third* class, elements of Italian grammar, Martini's lessons from the Gospels and Epistles, third part of the principles of arithmetic, selections from the history of the Old Testament, &c. and writing; and in the *fourth* class, elements of geometry, natural philosophy, and mechanics, natural history, architecture, grammar of a superior class, elements of geography, composition, fourth part of the principles of arithmetic, moral tales, moral reflections, and writing.

Besides these national schools, there are several private ones for the instruction of destitute children, at the expense and under the sole care of the benevolent.

## EDUCATION IN TUSCANY.

In the year 1835, the population of the grand duchy of Tuscany amounted to 1,421,000.

Omitting the academical instruction afforded in Tuscany by the universities of Pisa and Siena, (founded in 1160 and 1275, and containing, the first about 600, the second about 300 students) and the Studj Accademici at Florence, comprising medicine and the fine arts, we will confine ourselves to Secondary and elementary instruction.

Secondary instruction is afforded to males in five colleges, containing about 1200 scholars—seven superior Latin schools, under the Padri Scolopi, with about 1800—and twenty-one in the episcopal seminaries, with about 1000 boarders, besides some hundreds of day-scholars. Secondary instruction for females is given in establishments called Conservatorj, all under the direction of nuns, of which Tuscany possesses forty-three.

We come now to Elementary instruction, which is more properly the subject of our present inquiry. In the 247 communi into which the Grand Duchy is divided, there are 230 government boy's schools where the children are received gratis, besides others in the principal towns, but those in the country are often little frequented, the methods of instruction very defective, and their efficiency very small, from want of proper superintendence and direction. For the education of the females of the lower orders, the government supports seven elementary schools in some of the principal towns, containing about 1700 girls. Besides these, there are fourteen schools at the expense of the communi, and others for both sexes, attached to charitable institutions, or for which the scholars pay. The defectiveness, however, of all these different means of instruction, is but too plain, when it appears that the number of children who actually frequent school at any one time, is to the whole population as one to sixty.

It is to compensate this great want, and to introduce improved methods of teaching, that many of the most estimable inhabitants of the Grand Duchy, of both sexes and of all conditions, nobles, churchmen, lawyers, physicians, merchants, &c., have lately turned their united energies and acquirements, regarding the diminution of popular ignorance, and the improvement of the habits and morals of the people, as the first step towards any real social progress.

The means which have been as yet employed for diffusing the blessings of education by private exertion in Tuscany, have been the establishment of infant schools, and of schools of mutual instruction. Of the former there are twelve, numbering 354 boys and 576 girls; of the latter 16, numbering about 1500 children.

## COMMERCIAL SCHOOL AT LEGHORN.

This establishment, which was opened in 1833, under the direction of Professor Doveri, resembles in some respects, our proprietary schools, the parents of the boys received into it forming a society by whom the professors are appointed, their salaries and all expenses of the school defrayed, and the course of study arranged. Hence it is called the school of the *padri di famiglia*, (fathers of families,) and at the time of our visit, it contained forty boys, who attend school from 9 A. M. to 4 P. M. daily. The affairs of the school are under the immediate superintendence of a committee chosen annually out of the whole body of parents, consisting of four inspectors and a treasurer. Each of the inspectors undertakes in turn the particular personal *surveillance* of the establishment for three consecutive months.

On entering the school, we found all the children having just finished a slight luncheon, engaged in their amusements. It being a rainy day, last winter, a waltz was playing on a violin in one room, and all the company there whirling gaily round. The rest were in another room, receiving instructions in drawing, both these accomplishments being here considered as recreations. The boys are divided into three classes, and there being three separate school-rooms, three professors can be engaged in instruction at the same time, the different classes proceeding from one room to another at the conclusion of each hour. The course of instruction, as at present arranged, comprises the following subjects:

"Sacred history and geography, to all, every Saturday; natural history, to all, three times a week; Arithmetic and Geometry to the first class three times a week. The principles of morals, taught through the medium of the *Italian language*, to the first and second classes, three times a week; history, (ancient and modern,) taught by means of the *French language*, to the first and second classes, three times a week, geography, to the first and second classes, by means of the *English language*, three times a week; writing, drawing, dancing, to all; grammar to the first class."

This school, having a special object in view, to afford a good commercial education, the course of study has been directed to the objects which are most important to those who are to engage in commerce. These appear to be, the knowledge of mankind in relation to their Maker and to one another, the knowledge of languages, of the most important productions of nature, and that of the elements of mathematics.

The knowledge of man's nature, in his duties as a member of society, is communicated, (in addition to direct religious instruction,) by means of a succession of moral tales—read, discussed, and afterwards reduced to writing. On the day on which we had the pleasure of visiting the establishment, the lecture on morals commenced, by the professor of that branch reading aloud, to the whole class assembled round his desk, the essay of each boy on the subject which had been treated of in the last lecture. On that occasion, a tale had been read aloud to them by the professor, and then again by the class; after which they had been questioned on the facts related, and appropriate reflections and developments were suggested. Upon their return home, after school, each boy had written his account of the story in his own words, incorporating with it the reflections of the professor. It was these essays which the professor was now reading to the class, and upon which he remarked or put questions to the boys as he proceeded. This appears an excellent method of teaching composition and orthography, and answers that end much better than the plan of forcing upon a boy the irksome task of stringing together some common-place sentiments, on a trite subject, under the name of a theme.

It will have been remarked, that a peculiarity in this establishment is the method of teaching foreign languages, in a practical way, by making them the vehicle of instruction in other subjects.

While the exercise above described was going on in Italian, the second class in an adjoining room, was occupied with a lesson in history, given by a native of France, in his own language. He first read over and corrected, in the hearing of all, the portion of history which each boy had written in French, after his dictation at the previous lesson. This done, he proceeded to put questions in French to each boy in turn, upon the last two lessons, which questions they were called upon to answer in French; and in so doing, gave proof in general of considerable proficiency, by the correctness of their idiom and pronunciations. The professor, keeping in view the general object of his instructions, was not sparing of illustrations and digressions; thus rendering the subject more interesting to his youthful hearers, while they unconsciously caught the true Parisian idiom and accent. Geography is taught in the same manner, by a native of England, in his own language. These three exercises are confined to boys in the two highest classes, after they have already acquired, while in the lowest class, the rudiments of these two foreign languages. Taking a look into the third school-room, we found the youngest class receiving their introduction to the French language, and to the elements of natural history (one of the most amusing subjects for children,) at the same time. This was done by the professor writing, in chalk, on a large slate, a few lines of French, on the important mineral coal. As he slowly pronounced each word, the children copied it into their writing books, and then the meaning of each word and of the whole sentence was explained to them. Thus, the first notions of the grammar and orthography of the language are learned practically and therefore with ease and pleasantly; and the same with English, so as to fit them, on entering the second class, to pursue their study of these languages by the exercise above mentioned.

Besides the instruction in sacred history, a priest attends to teach the children the catechism and the doctrines of their church. They are forming also a small museum of natural history, with materials collected in excursions into the country during the summer.

The present course of instruction lasts about four years, and costs about 32*l.* per annum, with 2*l.* entrance money. It is, however, in contemplation shortly to extend the range of instruction, by the addition of a further four years' course, which will include Latin, logic, and metaphysics, commercial jurisprudence, the theory and practice of commerce, (by the medium of the German language,) algebra, chemistry applied to the arts, mechanics, and anatomy.

Children taught by methods so well adapted to their ages, tastes and pursuits, can be easily managed without the necessity of violent punishments, which are requisite where irksome employments are the constant cause of disgust and lassitude. The discipline is chiefly maintained by means of the parents, whose attention is constantly called to their child's conduct and progress, by means of a daily report made to each in writing.

Leghorn is also remarkable for an infant school for children of the *higher classes*, the only one of the kind of which we have yet heard, but which we feel sure will shortly be established among ourselves, when ladies perceive with what ease and pleasure children acquire, in these institutions, an amount of information which it would be the most dreadful drudgery to mother and child, to teach them singly. So true is it that man is a social animal, that all his faculties, moral, intellectual and physical, seem to be capable of their greatest and most easy development, by intercourse with his fellow creatures, and this especially amongst the young. Imitation and example will lead children to consider as an amusement, and to acquire insensibly from one another, habits and knowledge which would only cause disgust and weariness were it attempted to instil them by solitary teaching.



## SWITZERLAND.

The two and twenty cantons composing the Swiss Confederation, may be divided into three classes. The first comprises the cantons of Zürich, Bern, Basle, Schaffhausen, Argovia, Vaud, Neuchâtel, and Geneva; the number of their inhabitants is 1,076,000, or fifty-four per cent. of the entire population of Switzerland; the schools are attended by one individual in every nine souls, and are in a flourishing state. The second class embracing those parts of Switzerland which occupy an intermediate rank with respect to education, comprehends Luzern, Zog, Freiburg, Soleure, Appenzell (Auser-Rhoden,) Glarus, St. Gall, and Thurgau, these contain 560,000 inhabitants, or nearly twenty-nine per cent. of the entire population; and their schools are attended by one individual in every twelve. The third class, under which those cantons may be ranked, where the state of education is any thing but satisfactory, includes Schwyz, Unterwalden, Appenzell (Inner-Rhoden,) the Grisons, Tessino, and the Valais; these contain 342,000 inhabitants, or seventeen per cent. of the entire population of the confederacy, and the number of individuals attending the schools does not exceed one in every twenty.—*Journal of Ed.*

## CANTON OF TESSINO.

The law which regulates public instruction in this canton, enacts, that there shall be a school in every parish, in which reading, writing, and, at least, the first principles of arithmetic shall be taught, that it shall be obligatory on all parents, trustees, and guardians, to send their children and wards to school; that the conduct of the schools shall be vested in ministers, chaplains, or other competent persons of unblemished character; and that the parish boards shall be empowered to inflict penalties upon such parties as do not send their children or wards to school. The motives assigned for the passing of this law reflect much credit on the discernment of the framers. They are to the following brief effect: 'The happiness and well being of every free state which is established on sound principles, emanate from the wisdom of its institutions, and the diffusion of good education; for, on the one hand, everything worthy of human nature may be expected from a people whose minds are properly moulded, whilst, on the other, ignorance is the avowed parent of every vice, and the fertile source of disorder, both in the state and the individual.'—*Id.*

## CANTON OF SOLEURE OR SOLOTHURN.

The higher branches of instruction are provided for by three seminaries; the "Gymnasium," "Lyceum," and "Theological Institution." They are established under one roof in Soleure, the chief town. The Gymnasium, in which there are six classes, and as many teachers (here designated professors,) affords instruction in divinity, the classics, the German and French languages, elocution and poetry, the mathematics and arithmetics, history, geography, and natural history. The Lyceum studies consist of 2 courses, conducted by 3 professors, and extend to divinity, philosophy, natural history, experimental philosophy, mathematics, Latin and Greek philology, and history. In the Theological Institution, there are 3 classes and as many professors; the subjects studied are the higher branches of theological learning, Hebrew, morals, ecclesiastical law, and the science of education. History, both political and literary, the old German language, singing and drawing, are taught in all the three schools. No greater number of hours' instruction than 22 per week, can be required from any teacher. The number of students is between 115 and 120. The professors receive about £66 salary each, together with apartments in the building reserved for their accommodation.

Ample provision has been made for elementary instruction. Every parish and district (of which there are 131 in the canton) where 40 children of sufficiently ripe years are to be found, is required to open a school; and with regard to those parishes and districts in which there are upwards of 80 such children, it rests with the Lesser Council to determine on the expediency of opening a second school. Every parish is required to have a "Commencement-school" for boys and girls, and a "Continuation-school" for boys; besides a school of industry for girls, where practicable. One school, and in some instances two of them, are organized as model schools in each scholastic circle. Each parish is obliged to set apart a capital of £330 for the support of its schools. The canton has at present 130 elementary schools, of which 4 are for girls only. It has also 17 schools of industry for girls. Every child that has attained its sixth year is allowed to attend school, and every child so soon as it has reached the age of seven, is obliged

to attend it; and no child is allowed to quit its school before it has attained the age of thirteen years complete. The boys are compelled to attend the continuation-schools until they have reached their seventeenth year. Children who have made but indifferent progress are required to attend school till they are eighteen. The whole number of children in the schools in the year 1834, was 6940; independently of 655 in the civic schools at Soleure and Olten; the entire number was therefore 7595, out of a population of 63,300; a proportion of more than 1 in every 9 inhabitants. If a child be absent from school six half-days in the year without sufficient grounds for the absence being assigned, the party in fault is punishable by the local authorities.

## CANTON OF NEUCHÂTEL.

The present king of Prussia, on ascending the throne, directed his attention particularly to the welfare of the public schools in Neuchâtel. As early as 1803, he ordered the Council of State to examine the resources of the villages, and ascertain if they were sufficient to provide suitable means of instruction for all the children of the canton, and to consider the expediency of an annual subsidy for the aid of the schools.

In 1826, the Council issued a decree, in which, after expressing the sentiment, that the first duty of every christian government is to secure to the young the means of learning the duties of religion, and that 'the most effectual means for diminishing the number of those depending on public or private charity is the proper instruction and care of the children of the poor, they ordered the parishes to take care that all the children belonging to them, whether their dwellings were near or remote from the centre of the village, should receive instruction, at least, in the elementary branches of education.

In 1829, the king created a Commission of State for public education, composed of two counsellors of state, (one of which should be the president,) two clergymen, and twelve citizens of distinction from various parts of the canton. To this commission was entrusted all that concerned the improvement of the schools. They were directed to secure, by constant superintendence and rigid control, the instruction of all the children, by the establishment of suitable schools, and to aid the youth who devoted themselves to the employment of teaching, in completing their education. He placed at the disposition of this commission, from the first of January, 1830, the annual sum of \$30,000 from the civil list of the canton, for the aid of those parishes whose resources were insufficient to furnish the means of instruction. All the parishes had, at least, one school. Many of these were established on a good footing, were well attended, watched over with interest, and furnished with well informed teachers of good moral characters, who received competent salaries.

In 1831, the committee established or improved fifty-six village schools, besides founding others in the greatest part of those places which had till now been destitute of all means of public instruction.

In 1832, the commission reviewed all its decisions relative to the primary schools, increased some of the allowances of the preceding year on the authority of reports received, and decided to establish new schools in many remote districts. It was next occupied with the establishment of evening schools in the manufacturing villages, where most of the children were employed all the year, through the day, and thus prevented from attendance at the ordinary schools.

To secure instruction to those families whose poverty did not enable them to pay even the small compensation usually required, presented the greatest difficulty. The only course was to pay to the teacher the sum required—but this was not without its objections. It was found dangerous to render the schools absolutely gratuitous to those parents even who had paid the monthly sum with considerable difficulty. The very sacrifices they had been called to make, had excited an interest and attached them to the schools.

The commission hoped to secure a part of the happy results, which are so justly expected from Normal schools, by the establishment of conferences of teachers, and a directing committee of public education. The necessity of these assemblies, had been previously felt, and attempts had been made by many teachers to establish them on a limited scale, but hitherto in vain.

The commission resolved to establish one at the capital. They believed that by means of these assemblies, teachers would become acquainted with each other, and with the ideas, the observations, and the methods of the whole—the less advanced see what they have to learn, and all judge more modestly of their acquirements and abilities; and in seeing themselves the object of attention of the government, they would have new motives of encouragement, and for effort. These conferences would also serve to make known the spirit of the teachers, the extent of their knowledge, and the excellencies and defects of the schools.

The first conference was held at Neuchâtel, and comprised

seventy-three teachers, who were provided for, gratuitously, by the funds of the state, and the hospitality of the citizens. The reports from all the villages were received at this conference. The time was chiefly occupied in the discussion of important questions, on which the teachers gave their own opinions and experience.

#### CANTON OF ZURICH.

The constitution of 1830 ordains, "that it is the duty of the nation and its representatives, to provide for the instruction of youth. The government will, as far as in its power, aid and support the different schools and establishments for education." The following is an abstract of the law for national instruction,

National schools are to render the children of all classes active in mind, useful to society, moral and religious.

Therefore the state (government) orders the establishment of common and higher national schools.

The subjects of instruction in the common national schools are to be:—

1. Elementary instruction (for pupils from six to nine years of age; the chief object of which is to exercise the different powers of the mind.)

Language: exercises in speaking, thinking, memory, reading and writing.

Calculation: mental and on the slate, practice in the four rules.

Form: distinguishing different forms, reducing them to their most simple elements, combining and classing them—(preparation for geometry.)

Elementary singing.

2. Practical (real) instruction (for pupils from nine to twelve years of age. The object is now to impart knowledge.)

Language, grammar, themes.

Arithmetic, as applied to business.

Form and geometry.

The most important facts of the history, geography, and the constitution of the country.

Outlines of general geography, and geography of Europe.

The most remarkable features of general history.

Natural history and geography, with respect to farming and trades.

3. Cultivation of taste.

Reading poetry, and learning it by heart; singing, drawing, calligraphy.

4. Religious instruction.

Sacred history in an abridged form. Developing and cultivating moral and religious feelings and notions, as a preparation for the religious instruction of the church, (which is entirely separated from that of the school.)

Besides the imparting of knowledge and accomplishments, the chief object of the method of teaching is always to be, the cultivation of the understanding.

Pupils above twelve years of age are obliged to have six lessons a week at the common national schools, unless they have entered a "higher" school, as a gymnasium, &c.

No pupil may stay away from the lessons except from necessity. A pupil who has not left school, (they leave at fifteen,) cannot enter any service, unless his employer engages to let him attend school at the regular hours. Parents, guardians, &c. can be fined a certain sum a day for neglecting to let their children attend the lessons regularly.

During the holidays, which are from four to eight weeks in the year, there is to be at least one lesson every day, at a convenient time.

The following regulations may be mentioned respecting schoolmasters.

There is a seminary or establishment for preparing schoolmasters for all the common national schools in the whole canton.

Every year from twelve to eighteen young men are received into it from the canton of Zurich. There are sixteen exhibitions, each 100 franks (1 fr.=28 cents) a year, held for two successive years.

A normal school is attached to the seminary, in which what has been taught in the seminary is to be applied to practice. One who has left the seminary, (generally after two years' stay) and has passed the examination, is "candidate" for any situation which becomes vacant. In case of a vacancy, three masters out of those who apply for it are selected by the council of education, and from among these three one is chosen by the parish in which the situation is vacant.

Every year there are four meetings, under the direction of the council of education, of all schoolmasters within a certain district, who are obliged to appear, as well as all candidates. It is the object of these meetings that the schoolmasters may continually improve themselves; 1, by teaching, and that both with respect to method and address; 2, by treating on questions referring to certain points of education; or by making extracts from important works on the

same subject; 3, by communicating particular views as to school matters, or facts collected from experience; 4, by diffusing the knowledge of good school books. Every member of these meetings is to write one treatise every three months, all of which are sent to the council of education.

#### HIGHER SCHOOLS.

Government provides all citizens with the means of cultivating the useful arts and sciences according to their own choice.

To this end it establishes a canton school above the common national schools, and a high school, or university.

The canton school is divided into a gymnasium and a technical school.

The gymnasium is a preparatory school for those who wish to devote themselves to the learned professions.

The subject of instruction in the lower gymnasium (for pupils from twelve to sixteen years of age) are,—religion, Latin (*from its rudiments*), Greek, mathematics, geography, history, singing, instruction in drawing, calligraphy.

In the upper gymnasium (for pupils from sixteen to nineteen years of age):

First (lowest) class.—Religion, Latin, Greek, and Hebrew languages, German language and literature, mathematics, natural history and geography.

Second class.—Latin, Greek language and literature, Hebrew language, German language and literature, history, mathematics, physics.

Third (upper) class.—The same, mathematical geography; introduction to the philosophical studies.

For all classes, singing.

There are two public examinations in the year.

#### TECHNICAL SCHOOL.

This school is for all those who follow technical professions, and the different trades. It is divided into two parts.

The lower technical school is for pupils from twelve to fifteen years of age, and either prepares them for the upper, or finishes their education for any of the common trades.

The subjects of instruction are, religion, mathematics, natural history and physics; geometrical and common drawing; German and French languages; history and geography; practical arithmetic; singing, calligraphy.

In the upper technical school it is left to the choice of every student to take what lessons he pleases, but if once entered he must attend them. Many of the students are engaged in business during the greater part of the day.

The subjects of the lectures are, mathematics, natural philosophy; geometrical and common drawing; commercial arithmetic, and book-keeping. The German, French, Italian, and English languages; calligraphy.

In the lower technical school there is one public examination every year.—*Annals of Education*.

#### NORMAL SCHOOL OF THE CANTON OF ZURICH AT KUS- SNACHT, NEAR ZURICH.

The normal school at Kussnacht is about a league from the town of Zurich, and the buildings are prettily situated on the borders of the lake of the same name. This institution was re-organized in 1836, though the modifications made have been rather in the details than in the general principles. It now consists of a school for teachers, a preparatory school for this seminary, and three primary model schools. It is intended to supply teachers for the different grades of primary schools of the canton, and during a portion of the year lectures are also delivered in the seminary to the older teachers, who are assembled for the purpose in their vacations.

The superintendence and control of the normal school is vested by the legislative council in the council of education, who appoint a committee of superintendence from their own body. This committee visits the school at least once a month, attends its examinations, and, in general, inspects its management. The executive power is delegated to a director,\* who has the immediate charge of the school, and arranges the plan of instruction, in subordination to the council of education. He examines the candidates for admission, inspects the classes of the seminary, and of the schools attached to it, and lectures in the school of repetition for the older teachers. He is also responsible for the discipline, and reports half yearly the state of the institution to the council of education. He is moreover present at the meeting of the committee of superintendence. There are three other teachers, besides a variable number of assistants. These teachers in turn have charge of the pupils of the normal

\* Mr. Scherr, a very remarkable teacher. Until recently Mr. Scherr was an instructor of the deaf and dumb. The observation required in this department of instruction, and the newness of it, by which it has not degenerated into routine, require a constant exercise of the intellect of the teacher, and render it an excellent preparation for one who wishes to improve his art.



school in and out of school-hours. There are conferences of all the teachers, at which the director presides. The manners of the people and the purpose of the seminary render the discipline of very trifling amount. The pupils of the normal school reside in the village of Kussnacht, but spend the greater part of their time at the school, under the direction of its masters. All the time devoted to study, recitation or lecture, and regular exercise, is passed there.

To be admitted as a candidate for the normal school, a youth must be sixteen years of age, and of suitable moral, intellectual, and physical qualities for the profession of a teacher. He must have spent two years in the higher division of primary instruction (called here secondary) in the model school, or some equivalent one, or have passed through the preparatory department of the normal school, which gives a preference to the candidate, other qualifications being equal. The examination of candidates takes place once a year, and in presence of the committee of superintendence, or of a deputation from their body. The formal right of admitting to the school is, however, vested alone in the council of education. The subjects of examination are Bible history, speaking and reading, grammar, the elements of history, geography and natural philosophy, arithmetic and the elements of geometry, writing, drawing, and vocal music. The council of education fixes the number of pupils who may be admitted, and the most proficient of the candidates are selected. There are forty stipendiary places, ten of the value of one hundred and sixty Swiss francs (forty-eight dollars,) and thirty of half that sum. Natives who are admitted all receive their instruction gratis. If there is room in the school, foreigners may be received, paying twelve dollars per annum for their instruction. The number of pupils at the date of my visit, in the autumn of 1837, was one hundred and ten. The stipendiaries are bound to serve as teachers in the canton two years; a very moderate return for the education received.

There are two grades of courses in the normal school, one of two years for pupils intending to become teachers in the lower primary schools, the other of three years for the higher primary schools. The courses begin in April, and continue, with seven weeks of vacation, throughout the year. The subjects of instruction are: Religious instruction, German, French, mathematics, history, geography, natural history and philosophy, pedagogy, writing, drawing, and vocal and instrumental music. French is only obligatory upon the students of the three years' course. Gymnastic exercises and swimming are regularly taught and practised.

There is, besides, a lecture of an hour and a half on the art of building, once a week, attended by all the students. Those who learn instrumental music have lessons two hours and a half every week, and two hours of Sunday are occupied with singing in concert. One of the teachers devotes two extra hours every week to the assistance of some of the pupils in their studies, or to repetitions.

At the close of each year there is a public examination, and the pupils are classed according to its results. On leaving the institution, they are arranged in three grades, the first, of those who have gone very satisfactorily through the school, the second, of those who have passed satisfactorily, and the third, of those who have not come up to the standard. Certificates of the first two grades entitle their holders to compete for any vacant primary school.

The courses of practice begin in the second year, when the pupils take regular part in the exercises of the schools attached to the seminary. These are, first, two model schools for children from the ages of six to nine, and from nine to twelve, at which latter age the legal obligation to attend the school ceases. The third, called a secondary school, contains pupils from twelve to sixteen years of age. The system of instruction used in the lower schools is attended with very striking results. The lessons are not divided into distinct branches, studiously kept separate, as in most elementary schools, but are connected, as far as possible, so as to keep the different subjects constantly before the mind. Thus, a lesson of geography is, at the same time, one of history, and incidentally of grammar, natural history, of reading and writing, and so on through the circle of elementary instruction. The Pestalozzian lessons on form are made the basis of writing, and with good success. The lowest class is taught to speak correctly, and to spell by the phonic method, to divide words into syllables, and thus to count. To number the lessons. To make forms and combine them, and thus to write, and through writing to read. The second passes to practical grammar, continues its reading and writing, the lessons in which are made exercises of natural history and grammar. Reading and speaking are combined to produce accuracy in the latter, which is a difficulty where the language has been corrupted into a dialect, as the German has in northern Switzerland. Moveable letters are used to give exercise in spelling and reading. The plan of the Pestalozzian exercises in grammar is followed, and when the pupils have learned to write, a whole class, or even two classes, may be kept employed intellectually, as well

as mechanically, by one teacher. In reading, the understanding of every thing read is insisted upon, and the class-books are graduated accordingly. I never saw more intelligence and readiness displayed by children than in all these exercises; it affords a strong contrast to the dullness of schools in which they are taught mechanically. The same principles are carried into the upper classes, and are transplanted into the schools by the young teachers, who act here as assistants. The examination of the second school in Bible history, with its connected geography and grammar lessons, in composition, with special reference to orthography and to the handwriting, and the music lesson, at all of which the director was so kind as to enable me to be present, were highly creditable.

There are three classes in each of these schools, and the pupils of the normal seminary practice as assistant teachers in them at certain periods; the director also gives lessons, which the pupils of the seminary repeat in his presence.

In the highest, or secondary school, the elementary courses are extended, and mathematics and French are added.

The pupils of the preparatory department of the seminary spend two years in teaching in the two model schools, and in receiving instruction in the "secondary school" under the special charge of the director of the seminary. This establishment has furnished, during three years of full activity, two hundred teachers to the cantonal primary schools. These young teachers replace the older ones, who are found by the courses of repetition not able to come up to the present state of instruction, and who receive a retiring pension. The schools must thus be rapidly regenerated throughout the canton, and the education of the people raised to the standard of their wants as republicans.—Bache's Report.

#### CANTON OF BASEL.

Education in this canton as well as in the rest of Switzerland, has been most beneficially influenced by the educational establishments of Fellenberg at Hofwyl. It was a part of our original plan to have republished the most important part of Mr. Woodbridge's account of Hofwyl, which appeared in the *Annals of Education*. But this appendix has been already so far extended that we reluctantly abandon it. We give, however, the most important principles of Fellenberg as we find them in the appendix of Pres. Bache's report, under the head of "*Remarks of M. Emanuel de Fellenberg on education,—verified by his (Pres. B.) observations of Hofwyl.*"

The establishments for education at Hofwyl have attracted more attention probably than any other educational institutions in the world, and have become well known from the various reports made in relation to them. At the time of my visit, in 1837, they consisted chiefly of a school for poor children, called the Agricultural or Rural School; of a middle or real school for the education of youth not intended for the learned professions; of a boarding-school for the preparatory education for professional life, and of an agricultural institute, to the lectures of which pupils in the other departments only were admitted. All these establishments, requiring such different mental resources for their organization and management, were under the superintendence of M. de Fellenberg, their founder, and by whom the whole institution has been reared without public aid.

M. de Fellenberg is one of those rare instances in which, from motives of patriotism and benevolence, men occupying high stations by wealth and social position, devote their means, their time, and talents to the promotion of education. I am not aware of any case in which equal sacrifices have been made as in that of M. de Fellenberg.

On the reception of a new pupil, our first object is to obtain an accurate knowledge of his individual character, with all its resources and defects, in order to aid in its farther development, according to the apparent intention of the Creator. To this end, the individual independent activity of the pupil is of much greater importance than the ordinary, busy officiousness of many who assume the office of educators and teachers. They too often render the child a mere magazine of knowledge, collected by means purely mechanical, which furnishes him neither direction nor aid in the business of life. The more ill-digested knowledge a man thus collects, the more oppressive will be the burden to its possessor, and the more painful his helplessness. Instead of pursuing this course, we endeavor, by bestowing the utmost care upon the cultivation of the conscience, the understanding, and the judgment, to light up a torch in the mind of every pupil, which shall enable him to observe his own character, and shall set in the clearest light all the exterior objects which claim his attention.

A great variety of exercises of the body and the senses are employed to prepare our pupils for the fulfilment of their destination. It is by means of such exercises that every man should acquire a knowledge of his physical strength, and attain confidence

with regard to those efforts of which he is capable, instead of that fool-hardiness which endangers the existence of many who have not learned to estimate their own powers correctly.

All the various relations of space should be presented to the eye, to be observed and combined in the manner best adapted to form the coup d'œil. Instruction in design renders us important service in this respect—every one should thus attain the power of reproducing the forms he has observed, and of delineating them with facility, and should learn to discover the beauty of forms, and to distinguish them from their contrasts. It is only where the talent is remarkable that the attempt should be made to render the pupil an artist.

The cultivation of the ear by means of vocal and instrumental music is not less important to complete the development of the human being. The organs of speech, the memory, the understanding, and the taste, should be formed in the same manner be instruction, and a great variety of exercises in language, vocal, music, and declamation. The same means should also be employed to cultivate and confirm devotional feelings.

In the study of natural history the power of observation is developed in reference to natural objects. In the history of mankind the same faculty is employed upon the phenomena of human nature and human relations, and the moral taste is cultivated, at the same time the faculty of conceiving with correctness, and of employing and combining with readiness, the materials collected by the mind, and especially the reasoning faculty, should be brought into exercise, by means of forms and numbers, exhibited in their multiplied and varied relations.

The social life of our pupils contributes materially to the formation of their moral character. The principles developed in their experience of practical life among themselves, which gradually extends with their age and the progress of their minds, serves as the basis of this branch of education. It presents the examples and occasions necessary for exhibiting and illustrating the great principles of morals. According to the example of Divine Providence, we watch over this little world in which our pupils live and act, with an ever vigilant, but often invisible care, and constantly endeavor to render it more pure and noble.

At the same time that the various improvements of science and art are applied to the benefit of our pupils, their sound religious education should be continually kept in view in every branch of study; this is also the object of a distinct series of lessons, which generally continue through the whole course of instruction, and whose influence is aided by the requisite exercises of devotion.

By the combination of means I have described, we succeed in directing our pupils to the best methods of pursuing their studies independently; we occupy their attention, according to their individual necessities and capacities, with philology, the ancient and modern languages, the mathematics, and their various modes of application, and a course of historical studies, comprising geography, statistics, and political economy.—*M. de Fellenberg's letter to Lady Byron.*

**Moral Education.\*** The example of the instructor is all important in moral education. The books which are put into the pupils' hands are of great influence. The pupil must be constantly surrounded with stimulants to good action in order to form his habits. A new institution should be begun with so small a number of pupils, that no one of them can escape the observation of the educator and his moral influence. The general opinion of the pupils is of high importance, and hence should be carefully directed. Intimate intercourse between pupils and their educators begets confidence, and is the strongest means of moral education. The educator must be able to command himself—his conduct must be firm and just; frequent reproofs from such are more painful to the pupil than punishment of a momentary sort.

While influences tending directly to lead the pupil astray should be removed from the school, he must be left to the action of the ordinary circumstances of life, that his character may be developed accordingly. The pupil should be led as far as possible to correct his faults by perceiving the consequences of them; the good or bad opinion of his preceptor and comrades are important means of stimulation. Exclusion from amusements, public notice of faults,† and corporeal punishment, are all admissible. Solitary confinement is efficacious as a punishment. Rewards and emulation are unnecessary as motives.

Religion and morality are too intimately connected to admit of separation in the courses inculcating them. The elementary part of such a course is equally applicable to all sects.

No good is to be derived from employing the pupils as judges or juries, or giving them a direct share in awarding punishment for

offences. It is apt to elevate the youth too much in his own conceit.

Family life is better adapted, than any artificial state of society within an institution, to develop the moral sentiments and feelings of youth.

**Intellectual Education.** A system of prizes, or emulation, and the fear of punishment, do not afford the strongest motives to intellectual exertion. Experience shows that places in a class may be dispensed with. It is possible to develop a taste for knowledge, a respect and attachment for teachers, and a sense of duty which will take the place of any lower motive in inducing the requisite amount of study.

In the higher departments of instruction it is better to confine the task of the teacher to giving instruction merely, placing the pupil under the charge of a special educator, at times when he is not engaged in the class room.

With the other, and more useful branches of instruction, correct ideas of natural history and phenomena should be communicated to children, and require, first, that they shall be duly trained to observation by calling the observing faculties into frequent exercise. Second, that they shall be made acquainted with the elements of natural history, especially in reference to familiar objects. Third, that the most familiar phenomena of nature, such as thunder and lightning, the rainbow, &c.; and further, the most simple principles of the mechanic arts, trades, &c., should be explained to them. Fourth, they should be taught to draw, in connexion with the other instruction. Accuracy of conception is favored by drawing and it is a powerful aid to the memory. The most important principles of physiology, and their application to the preservation of health should form a part of the instruction.

**Physical Education.** Pure air, a suitable diet, regular exercise and repose, and a proper distribution of time, are the principal means of physical education. It is as essential that a pupil leave his studies during the time appropriated to relaxation, as that he study during the hours devoted to that purpose. Voluntary exercise is to be encouraged by providing suitable games, by affording opportunities for gardening, and by excursions, and by bathing. Regular gymnastic exercises should be insisted on as the means of developing the body; a healthy action of the bodily frame has an important influence on both mind and morals. Music is to be considered as a branch of physical education, having powerful moral influences. The succession of study, labour, musical instruction or play, should be carefully attended to. The hours of sleep should be regulated by the age of the pupil.

#### INTERMEDIATE OR PRACTICAL INSTITUTION OF HOFWYL.

It is designed for the children of the middle classes of Switzerland—of farmers, men of business, mechanics, professional men, and persons in public employ, whose means do not allow them to furnish their children an education of accomplishments, and who do not wish to have them estranged from the simplicity of the paternal mansion and of their native village, by the comparative luxury which is necessary in the Scientific Institution, in order to meet the artificial wants and habits of the children of the wealthy and the noble. In view of these circumstances, the buildings, the furniture, the table and the dress of the pupils are arranged in correspondence to the habits of the middle classes of German Switzerland,—habits incomparably more simple and economical than those of the middle classes among us, and in some respects, it seems to me, approaching too nearly to the rudeness of former days. In this way the pupils receive an education far more useful and solid than most of the youth of our country, at a very moderate price, without incurring the danger of acquiring tastes and habits which will render them disgusted with the society in which Providence calls upon them to pass their lives.

The branches of instruction indicated in the prospectus are the following:—Religion, commencing with Bible history, and terminating with the doctrines of Christianity, which are taught to each pupil by a clergyman of his own denomination, the German and French languages, arithmetic, geometry, natural history and natural philosophy, geography (especially of Switzerland,) universal and national history, geometrical and perspective drawing, writing, vocal music, in practice and theory, gymnastics, and for those whose parents desire it, instruction in carpentry, and various kinds of work on wood. In the languages and arithmetic, a lesson is generally given every day; in each of the other branches, two or three times a week.

As this institution is designed to take the place of the family in educating as well as in instructing its pupils, those branches which are especially useful in forming the character and cultivating the heart, in elevating their minds above the material interests of life to its highest object, receive the most particular attention; and history, geography and natural history, as well as religion, furnish important means for operating on the character and the heart. But

\* The remarks in this and the succeeding sections are abstracts from the account of Hofwyl, by our countryman W. C. Woodbridge, or from Conversations with M. de Fellenberg.

† This, however, violates another principle, which is to allow no punishment of a humiliating sort.



the great means of accomplishing the object is by well regulated habits of industry and activity, both of body and mind. Two hours daily are devoted to bodily exercise, a part of which is spent in manual labor, which will preserve one portion of the simple habits of their childhood, and a part to gymnastic exercises, which are so important in order to give activity and strength to every part of the body.

Among the most important means of moral and religious improvement, are the religious services of the morning and evening assembly. The principal instructor reviews the events and conduct of the day, and endeavors to derive instruction from it for the future. A special religious service is held on Sunday for all the pupils of the institution by its chaplain.

In the hours devoted to labor, the pupils are employed, in part in the house and in part in the field, in the various occupations which are most likely to be useful in their family life. With a view of cultivating habits of order and punctuality, as well as to promote that spirit of brotherly affection which shall lead each to think of all, and all to seek the welfare of each one, they perform in turn a variety of little household offices, such as preserving the order and cleanliness of rooms and passages and play-grounds, taking care of the books and tools which they employ, keeping an account of injuries, &c. The most important of these little offices are filled by the ballots of the pupils.

As an additional means of cultivating feeling, the younger and more ignorant or feeble pupils are committed to the care of those who are older and more experienced, who are expected to perform the office of elder brothers, in watching over their personal and moral habits. Where the parents desire it, each pupil is furnished with a little garden, which he is taught to cultivate, and whose products he is allowed to dispose of.

The recent examination of this school furnished ample evidence of the utility of the course pursued. A few examples which I witnessed will best illustrate my meaning.

In the examination of a class of boys from twelve to fifteen years of age, on the subject of geometry, a boy was called to the blackboard to describe and explain the method of ascertaining the superficial contents of a triangle. He drew a right angled triangle, and then a parallelogram, on the same base, and of the same height. He then proceeded to show that the surface of the triangle was half the surface of the parallelogram, and consequently that the base multiplied by half the height produced the contents of the triangle. A second boy illustrated the same principle with an oblique angled triangle, with a familiarity which is often wanting in the students of our colleges.

A third pupil was called upon to explain the mode of ascertaining the contents of a circle. He drew a circle, and divided it into triangles by lines drawn from the centre to the circumference. He then proceeded to show that as the contents of each triangle could be ascertained by multiplying the radius, or half the diameter of the circle, by half the base of the triangle, so the contents of all the triangles, or of the circle itself, could be determined by multiplying the radius by half the circumference which forms the base of all the triangles. A fourth pupil illustrated the same principle by representing the circle as broken, or rolled out, into an equal number of triangles, upon a single straight line equal in length to the circumference of the circle.

Other pupils were called up in succession, who described and demonstrated the method of calculating the surface of a cube, a pyramid, and a cone; and subsequently the solid contents of each of these forms, with more familiarity than most of the boys of our schools would explain a process in arithmetic.

A similar class of boys was examined on the refraction and reflection of light, as a part of their course of instruction in natural philosophy. They were first called upon to explain the crooked appearance of a stick in the water, and the deception in the apparent position of a fish in a stream; and assigned as the cause the direction of the refracted rays in passing from a denser to a rarer medium. One of the pupils was then required to describe on the blackboard the manner in which a piece of chalk placed at the bottom of a vessel, so as to be concealed by its side, will become visible when water is poured upon it. Another showed the influence of this principle on the appearance of the sun before the true time of rising, or after the true time of setting. A third illustrated in the same manner the parhelia, or the appearance of two or three suns. In short, this and other principles taught, had been rendered tangible as well as useful, by giving them immediately a practical application; and the answers were given by the pupils with the same simplicity as if they had been asked the most common question, without any apparent consciousness that they were talking of philosophy.

Some of the elder pupils, who form the normal branch of the school, and are preparing to become teachers, were examined on one of the most brilliant events in Swiss history—the war with Charles the Bold, of Burgundy. Instead of calling them to think

and speak of the imperishable glory which these victories threw around the Swiss arms, he led them to consider the influence which they had in rendering the people more restless and ambitious and luxurious, and thus sapping the foundation of national safety and prosperity; and to reflect on the lessons this ought to furnish for the future.—W. C. Woodbridge in *Annals of Ed.*

#### INSTITUTION FOR THE EDUCATION OF TEACHERS AND POOR CHILDREN, AT BEUGGEN, NEAR BASLE, SWITZERLAND.

A few miles from Basle, on the northern bank of the noble Rhine, is the chateau of Beuggen which formerly belonged to the Teutonic order of Knights. On the dissolution of that powerful but corrupt body, it was left to neglect and decay, and came into the possession of the Grand Duke of Baden, in whose territory it lies. On the application of a number of benevolent individuals of Basle in 1819, the Grand Duke gave permission to have it converted into a seminary of education.

The founders of the seminary of Beuggen, assumed as their first principle, that it *should be sustained by voluntary contributions and aid*. They decided that they would rely on Christian benevolence and the kindness of Providence, exclusively for its support, without burying any of the immediate contributions in a permanent fund, which may hereafter be perverted to uses totally contrary to the wishes of the owners. They desire to have no other persons engaged in the care of the establishment than those who are actuated by the sincere desire of doing good; and therefore pay no compensation which may become a temptation to those who seek merely for subsistence or gain. They desire that all who are connected with it should have the spirit of benefactors to the poor—of disciples of him who was emphatically the friend of the poor.

It is designed exclusively as an institution for *poor children* and those who are to become *teachers of the poor*. The more wretched and neglected are the objects of charity, the stronger are their claims considered; and even the criminal, they do not feel justified in excluding from the benefits of Christian education. They are received from six to fourteen years of age, and retained until sixteen or seventeen, when they are dismissed with a sum necessary for an outfit, in order to enter into domestic service, or mechanical employment. Some are received at the expense of the treasury; but most, by the recommendation of a benefactor or of public authorities, on the payment of six and a half louis d'ors (about thirty-five dollars) a year for their support and education.

It is not designed to be a *scientific* institution; but simply to prepare children for a humble situation in life—to fit them to live happily in the station in which Providence has placed them, and which it is *here* very improbable that they will ever leave. They are therefore instructed only in the elementary branches of knowledge, including biblical history and religious instruction; the maternal language, combining reading, writing, grammar, and the correct expression of their thoughts in writing; mental and written arithmetic; a general knowledge of geography; and vocal music by note. The religious instruction is accompanied by narratives from the history of the church, and of missions; and passages of Scripture and hymns, are committed to memory. Four hours daily are devoted to instruction generally, besides four lessons weekly in vocal music. During the remainder of the day, the children are employed in agricultural, domestic and mechanical labors.

The girls are employed in the various domestic occupations of the house, and made familiar, as far as possible, with all its branches, including gardening. They are also taught sewing and knitting; and to make and mend the clothing of the family.

But the institution is also designed for the *education of teachers of the poor*—of young men, from the laboring classes chiefly, who desire to qualify themselves for this task, and who possess the character requisite. From fifteen to twenty pupils form this branch of the institution, and receive a course of instruction which continues three years—when their places are supplied by others. The age assigned for admission is from eighteen to twenty-five. Good health, good capacity, and a Christian character and life, are the qualifications demanded, and a period of probation which includes one of the semi-annual examinations is always required, in order to ascertain fully how far they are fitted for the office. It is also considered important that the candidate for the office of a teacher should be familiar with agricultural labors or with some mechanical employment, as they are designed especially for poor villages, and institutions for the poor. For the same reason, they are expected to combine labor and study, and not to labor merely for amusement or for exercise, but to engage in it as a part of their education and calling. They are supported and taught gratuitously, unless they are sent specially by benefactors or public authorities for the purpose of education, when they pay twelve and a half louis d'ors (about sixty-two dollars) a year. The candidates, as well as the children, receive a small outfit in clothing and books on leaving the institution.

These students receive such instruction only as is necessary to enable them to teach the elementary branches we have mentioned. Each branch is of course studied more thoroughly and extensively than by the children themselves. They are required to go through the same course of instruction and exercise, with more full explanations, that they may have a practical knowledge of the methods of instruction deeply impressed upon their minds. The first year is exclusively devoted to the study of the elementary branches. In the course of the second year, those who are fitted for the charge, are employed alternately as assistants in the school for children. In the third year they receive a regular course of instruction, on the methods of teaching and discipline, and the duties of a common school instructor. A knowledge of instrumental music, (which is indispensable to every Swiss or German school-master, usually the organist of the church,) is added to the other branches of instruction.

In the whole course of their education, every effort is made to preserve the simple habits and taste of a country life, and to cultivate the spirit of self-denial, obedience, industry, contentment and devotedness to the good of others.

The day is divided in such a manner that the normal pupils receive most of their instruction in the morning, and the children in the afternoon; thus allowing one inspector to preside over both. The family rise at five. After attending to personal cleanliness and the order of their chambers the children go to their work, and the young men to private study. At half past six, all breakfast together; and at seven, assemble to listen to biblical instruction and unite in family worship. The rest of the morning is employed by the normal pupils in attending to instruction, and by the children in manual labor. An hour is devoted to dinner, and the afternoon is spent by the children in school, and by the normal pupils in manual labor, until four o'clock, when all receive their evening bread or luncheon agreeably to the customs of Switzerland. The latter then attend to instrumental music, and the former return to their work. At eight o'clock is the evening repast, followed by the evening worship of the children. After they have retired under the direction of their guardians, the inspector passes the remainder of the evening in reading with the normal pupils, and the religious service designed for them.

On Sunday, agreeably to the universal practice of Germany and Switzerland, an ordinary service is held in the morning; but the afternoon instruction is addressed immediately to the children in the catechetical form, sometimes in reference to the Bible, and sometimes to the catechism of the church. In the evening, the more advanced pupils receive special religious instruction, preparatory to confirmation; while the rest are employed in listening to some interesting narrative of a religious nature. The intervals of the day are spent by the children in exercises in sacred music, in committing to memory hymns and passages of Scripture, and in walks, under the direction of their guardians.

In the course of fifteen years, this institution has received, educated and dismissed, two hundred and four poor children, and ninety-six teachers who now give instruction to three thousand poor children in different portions of the world. Of these, eighteen were teachers of the poor in Switzerland, sixteen in Germany, one in France, six in European and Asiatic Russia, and one in North America, in 1833; one had been dismissed for study, and nineteen for the pursuit of other employments. In the year 1835, there were seventy-five children and eighteen normal pupils in the institution.

#### VISIT TO DEUGGEN, BY PROFESSOR VINET, OF BASLE.

We entered the great hall (once the banqueting hall of the Teutonic knights) and found about one hundred persons (twenty of whom were preparing to be teachers, and about eighty children of both sexes) listening to Mr. Zeller, who was explaining to them the parable of the rich young man (Matt. xix. 16-26.) *Listening* is not the word—*conversing*, would be more appropriate—for there is not a proposition, which, in the mouth of Mr. Zeller does not become a question. The attention of the children is kept up without effort or artifice. Their reason, their memory, their conscience are alternately appealed to. Sometimes, the pupils are called upon to find one or more facts in the Bible, similar to that which is the topic of remark: more frequently the questions are addressed to the consciences; and the calm and simple manner of replying, shows that it is the conscience which answers. The art of Socrates, of drawing forth the ideas from the mind, must be familiar to the teachers; for the correctness, the promptitude, and the unanimity of the replies was beyond what could be expected. I was often occupied in seeking an answer, when a dozen children had found and given it. A method, which produces such results, must be eminently rational. I wish our institutions, which claim the name of learned, could present something correspondent, for they are yet far from it.

The questions were addressed to all, and the answers came from many mouths—not always the same—and from all parts of the hall. It was remarkable that there was no ostentatious haste in replying;

serious interest in the subject seemed to absorb every other feeling.

Our arrival in the midst of the lesson, disturbed and occupied no one; the attention and stillness were unvarying, and not a trace of weariness was visible. I have been present at the lessons of distinguished catechists, where the restlessness, the noise, and the tricks of children, scarcely allowed me to attend. Here I found directly the contrary.

Let those who doubt the good effect of such instruction, look at this mass of children, most of whom are drawn, so to speak, from the sinks of human corruption, collected on the highways, where they were wandering as beggars, or reared from the haunts of crime. Let him observe their decency, their good manners, their open and cheerful faces—their seriousness, without constraint—and then decide. For myself, I have had the opportunity of observing for many years, the manners of students in colleges; and I should thank God if I could see half the order and propriety of demeanor among them, which I witnessed in these little vagabond beggars. The following morning, I entered the great hall, and the lessons were not yet begun. I listened at the door before opening it, but hearing no noise did not suspect that any one was there. I was surprised, on entering, to find twenty children there, engaged in looking over their lessons without any superintendence, and yet in perfect silence. I was humbled, in thinking of other schools, where the intervals of lessons are regularly indicated by noise and dust and quarrels. I ought to add, that the most perfect neatness reigned throughout the halls. It was at the sight of these things, that the venerable Pestalozzi, who visited the institution in the last year of his life, exclaimed, "There reigns here a spirit of astonishing (or inconceivable) power." And he was right. It is the spirit of God! Is not God the real founder—the real director—of institutions like this? and ought not he to receive all the praise of the results? It is this thought, which prevents my saying all I could wish, of Mr. Zeller. We passed an hour with him, however, which I shall never forget.

I was much gratified to find his judgment confirming what I have often felt, the evils of praise in a course of education. He does not exclude the feeling of honor as a motive to good; but he wishes that the honor and the source of the honor, should be placed far beyond the judgment of men. He wishes that his pupils should seek to be honored by their Creator. 'This desire,' said he, 'involves no danger, for God has respect only to the humble.' Pestalozzi disliked exceedingly the stimulus of emulation, and wished to substitute for it the interest of the knowledge acquired. The desire of making progress, the consciousness of having advanced, he believed to be a sufficient stimulus for a child. In order to obtain this result, he considered it only necessary to *teach properly*; that the whole secret consists in having good methods of instruction, and Mr. Zeller believes there is much truth in this opinion.

I inquired if this stimulus would not be applicable to some sluggish spirits. Mr. Zeller observed that there were very few who had not some other feelings, some other accessible point, which the teacher could discover, if he fully understood his art. 'I was much humbled by my own failure, in one instance,' said he. 'A new pupil was sent to us, who seemed to be exceedingly stupid. I attempted to teach him the first five letters of the alphabet, but without success. My patience was exhausted, and I said, "My poor child! if with all this trouble, you cannot learn one letter, what can we do with you? We shall be obliged to send you back where you came from." The child wept profusely. I was touched with pity, and, as a last experiment, I called another child who had just learned the alphabet. "Come, teach your companion what you have learned!" He was more patient or more skillful than myself; for in three days the poor boy came to me and repeated the whole alphabet.'

At seven o'clock in the evening, there was a *farewell assembly*, to take leave of a young man of seventeen years of age who was about to go away. He was a poor beggar boy, taken out of his misery four years before, and placed at Bueggen, by the friend who accompanied me. He now promises well, and is about to enter in a useful employment. The children sang a hymn very correctly. The Inspector, (Mr. Zeller) explained a passage of the Bible in his ordinary manner, applying it particularly to the young man, reminding him of the blessings he had received, and giving him counsel for his future course, and praying for the blessing of God upon him. We then witnessed the supper of this large family, which was accompanied by the usual religious services, and saw the children retire, two and two, singing the German 'Good night.' I have nowhere seen so much order combined with so little stiffness, so much regularity with so few forms, or so much of the true life of religion, as at Bueggen.—*Annals of Ed.*

The educational institutions of Switzerland are full of interest, and a popular account of them would be a valuable contribution to the cause of education in this country. Within the last ten or fifteen years, great improvements have been made under the operation of the precepts and example of Pestalozzi, Vershi, and Fellenberg, and the influence of normal schools, of which there have been fourteen established in the various cantons.